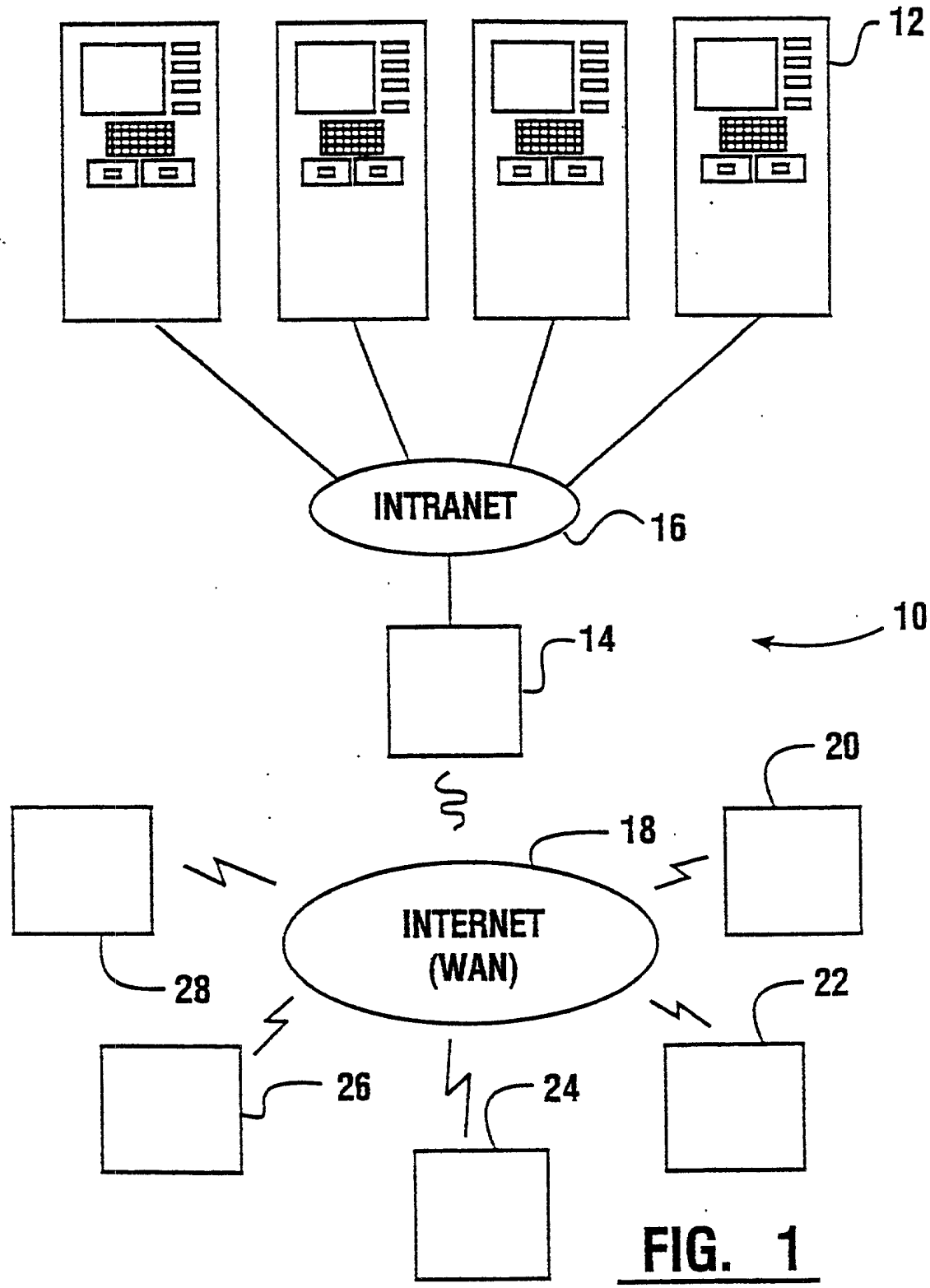


FIG. 1

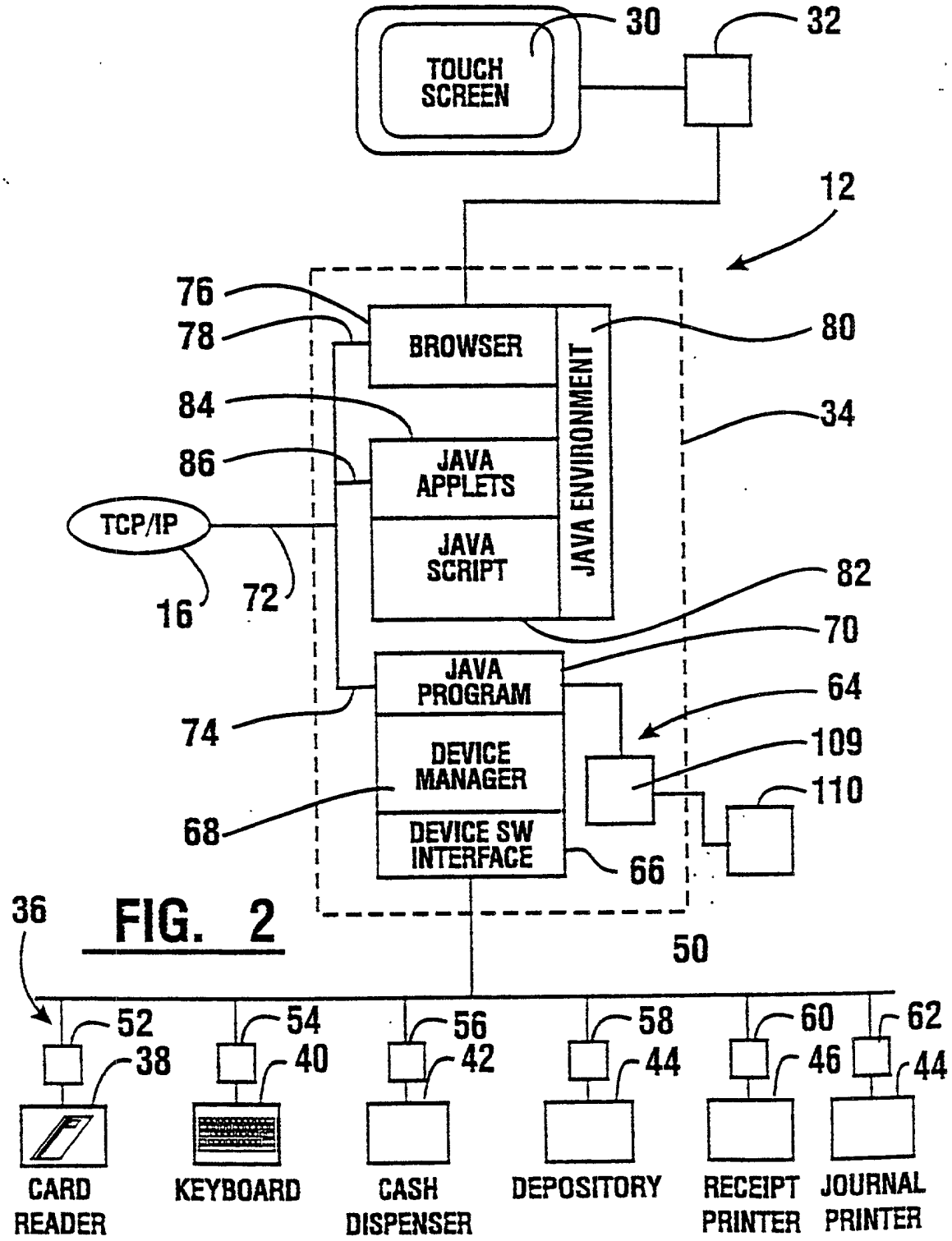

TOUCH SCREEN
30
32
12
76
78
BROWSER
80
JAVA ENVIRONMENT
84
34
86
JAVA APPLETS
JAVA SCRIPT
TCP/IP
16
72
82
70
JAVA PROGRAM
64
74
DEVICE MANAGER
109
110
68
DEVICE SW INTERFACE
66
36
50
52
54
56
58
60
62
38
40
42
44
46
44
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
RECEIPT PRINTER
JOURNAL PRINTER

FIG. 2

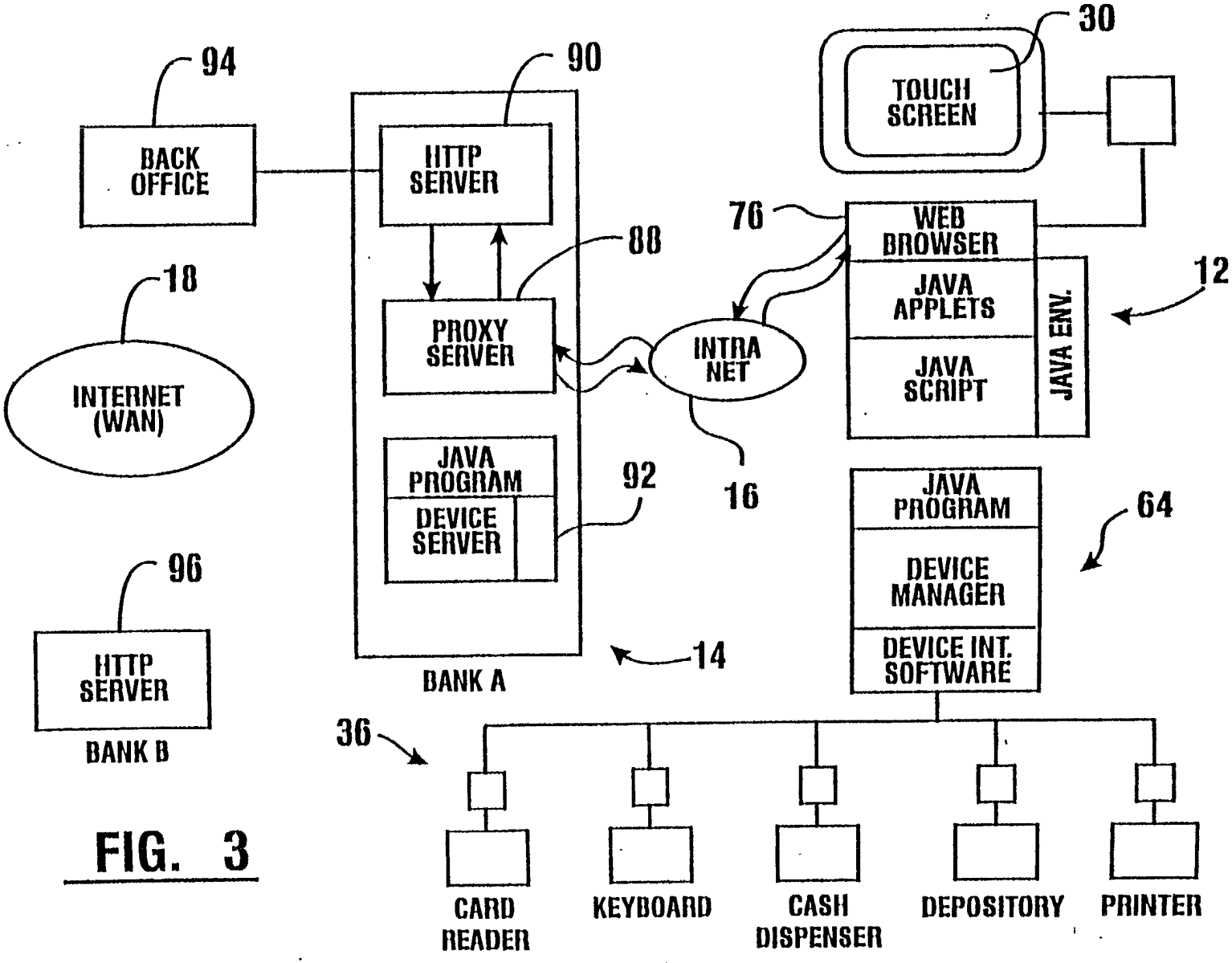

94
BACK OFFICE
90
HTTP SERVER
88
PROXY SERVER
18
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
92
16
INTRA NET
30
TOUCH SCREEN
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
12
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
96
HTTP SERVER
BANK B
BANK A
14
36
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 3

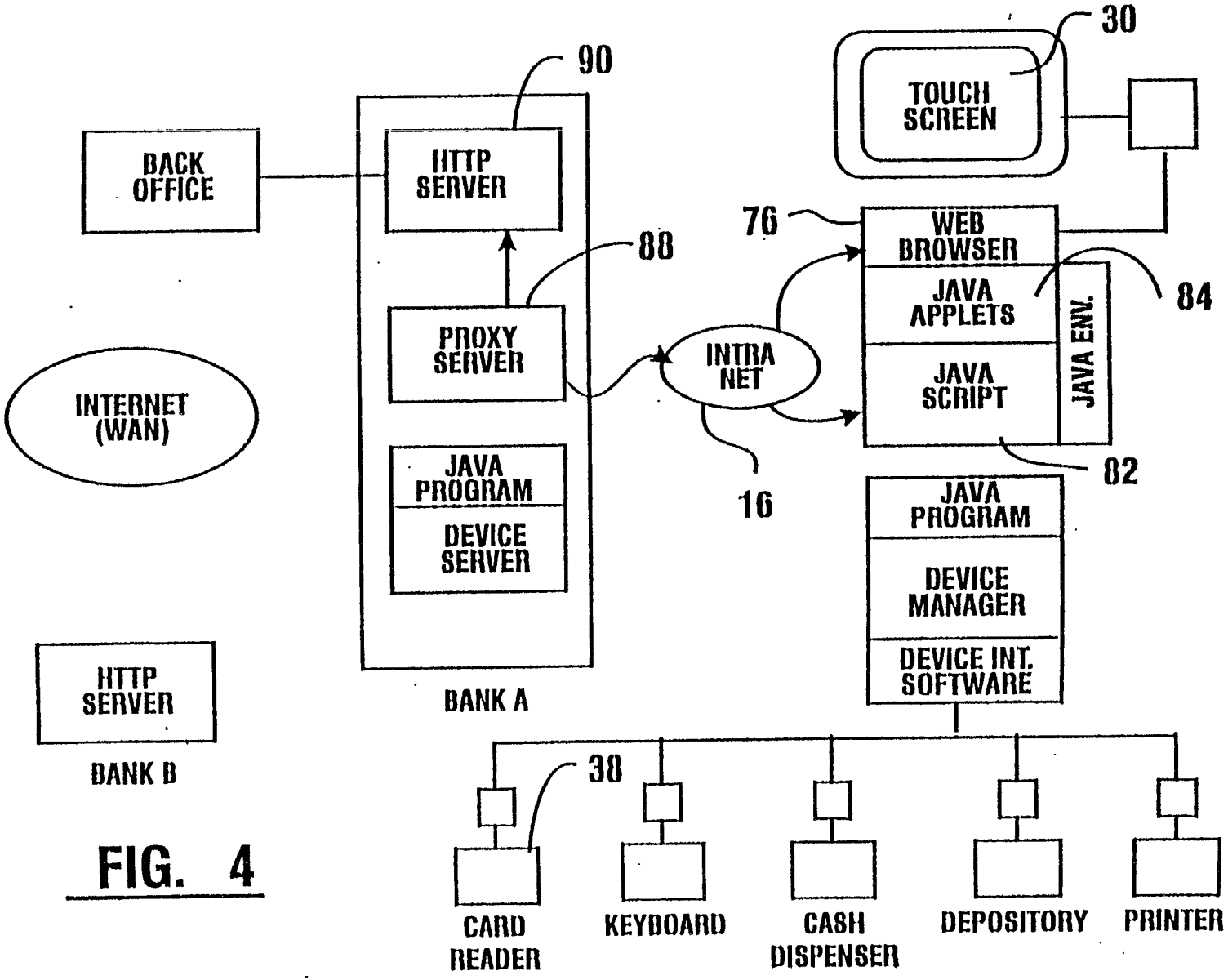

30
TOUCH SCREEN
90
BACK OFFICE
HTTP SERVER
88
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
PROXY SERVER
INTRA NET
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
16
82
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
HTTP SERVER
BANK A
BANK B
38
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 4

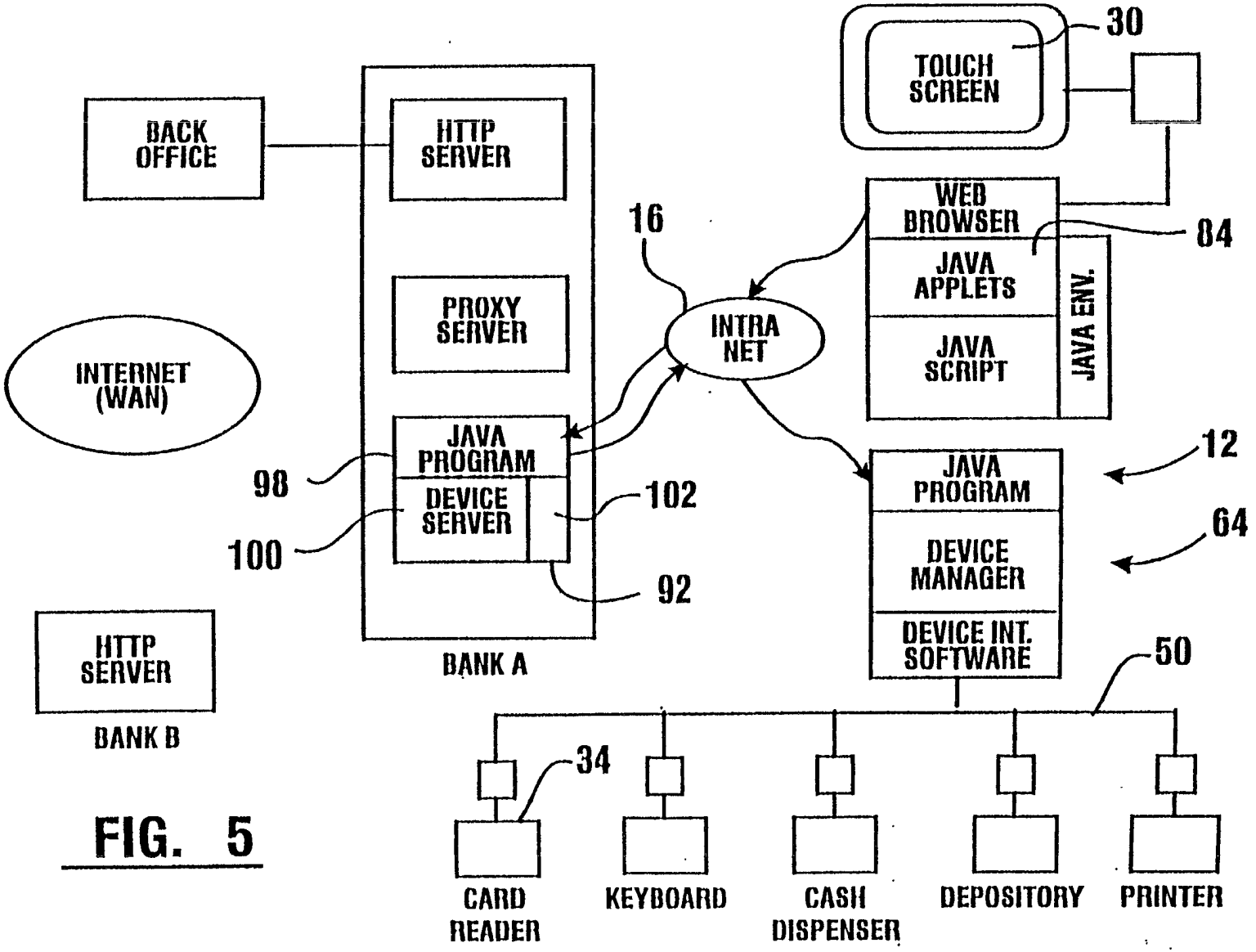

BACK OFFICE
HTTP SERVER
PROXY SERVER
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
98
100
102
92
BANK A
HTTP SERVER
BANK B
16
INTRA NET
TOUCH SCREEN
30
WEB BROWSER
84
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
12
JAVA PROGRAM
64
DEVICE MANAGER
DEVICE INT. SOFTWARE
50
34
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 5

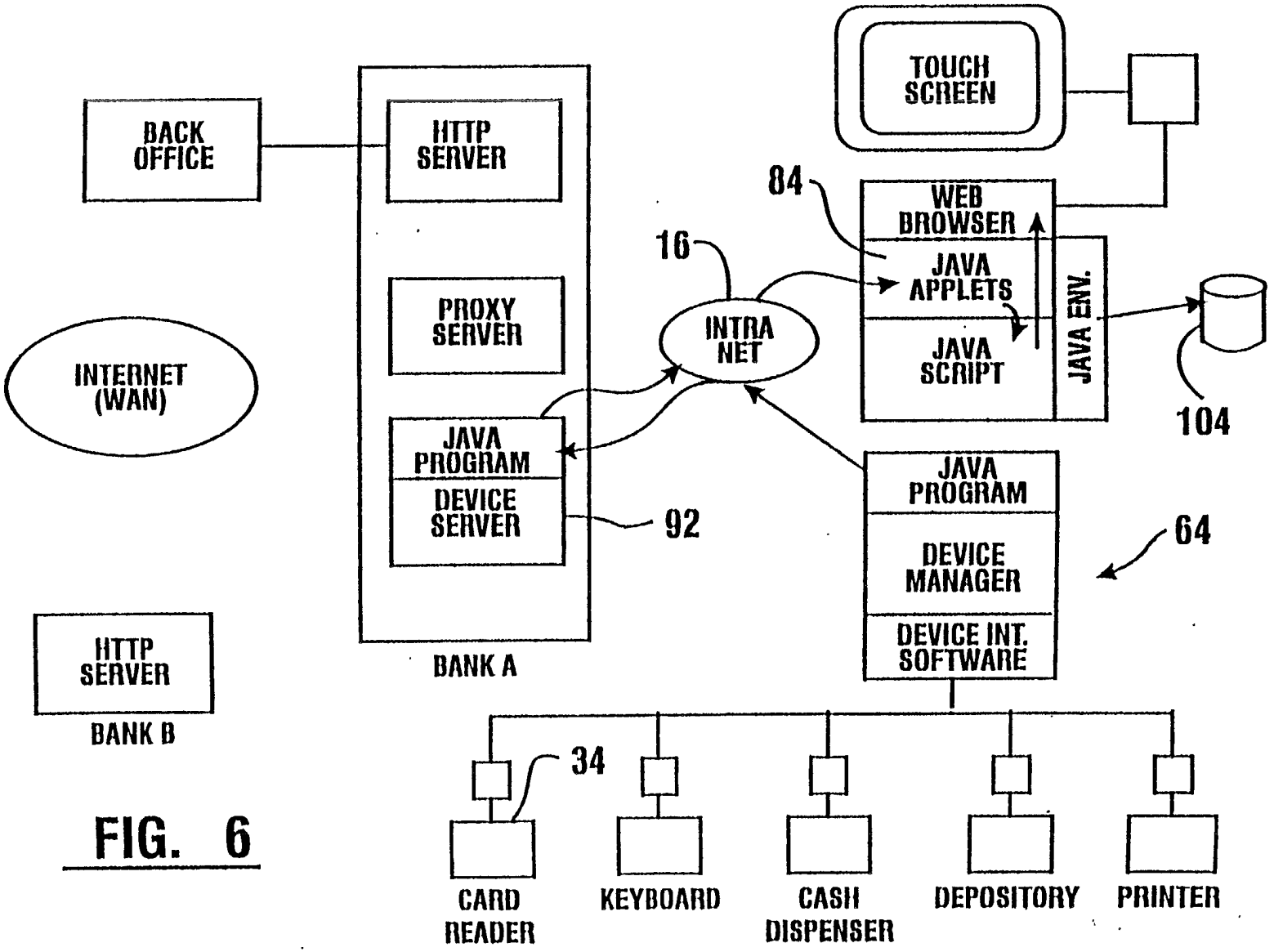

TOUCH SCREEN
BACK OFFICE
HTTP SERVER
84
WEB BROWSER
16
JAVA APPLETS
JAVA ENV.
PROXY SERVER
INTRA NET
JAVA SCRIPT
INTERNET (WAN)
104
JAVA PROGRAM
DEVICE SERVER
92
JAVA PROGRAM
DEVICE MANAGER
64
DEVICE INT. SOFTWARE
HTTP SERVER
BANK B
BANK A
34
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 6

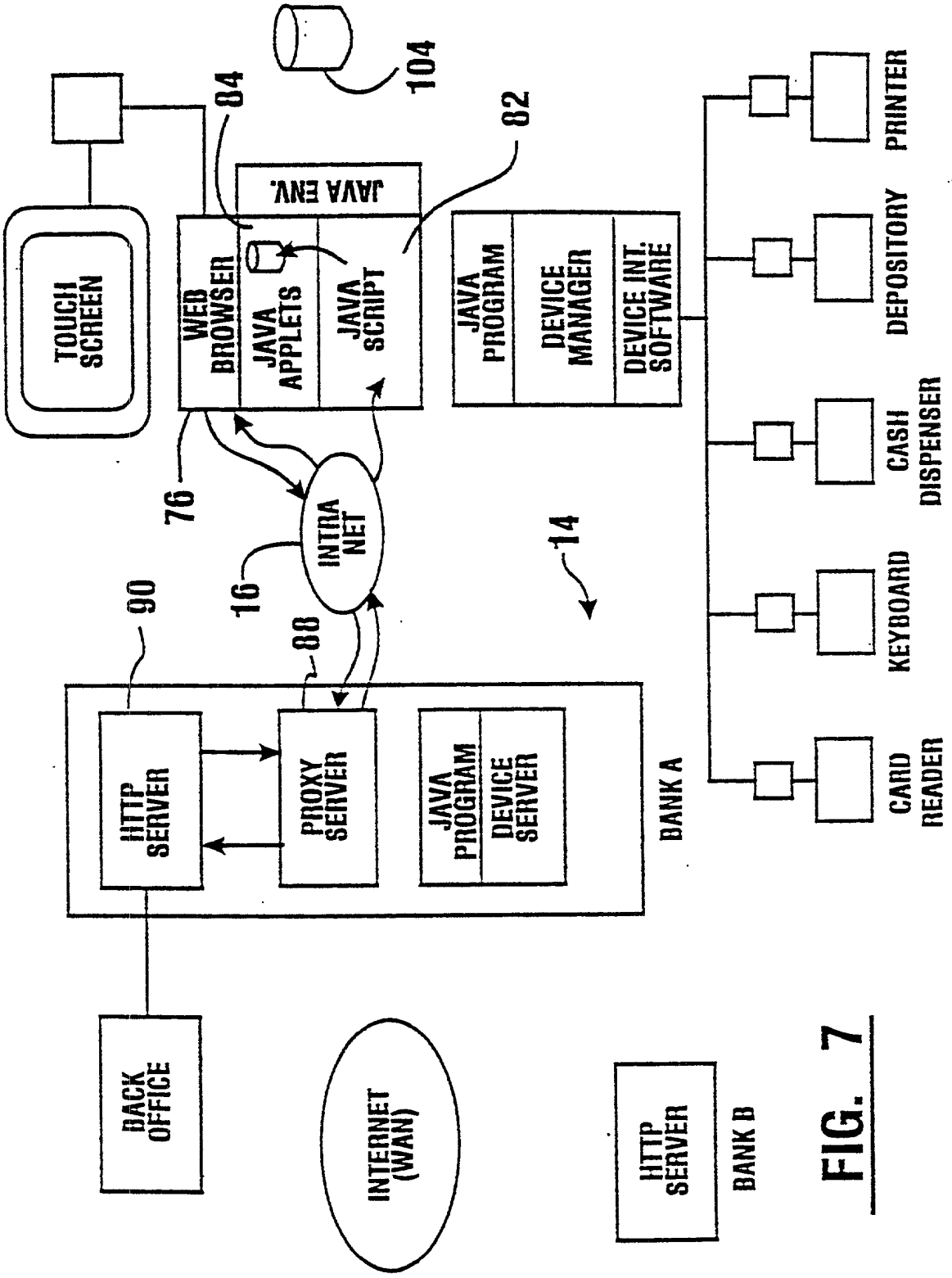

TOUCH SCREEN
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
82
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
PRINTER
DEPOSITORY
CASH DISPENSER
KEYBOARD
CARD READER
76
16
INTRA NET
14
90
88
HTTP SERVER
PROXY SERVER
JAVA PROGRAM
DEVICE SERVER
BANK A
BACK OFFICE
INTERNET (WAN)
HTTP SERVER
BANK B

FIG. 7

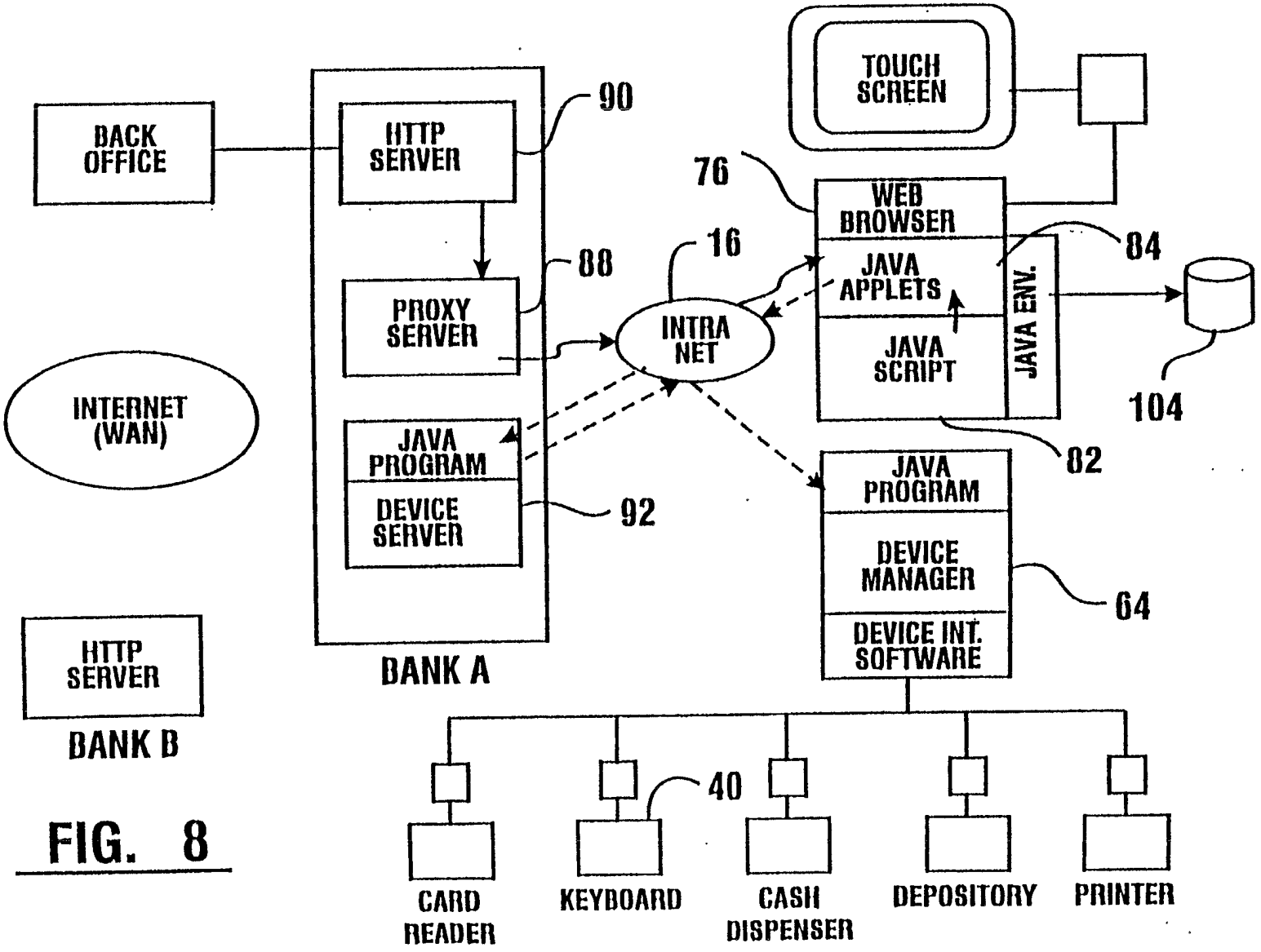

BACK OFFICE
HTTP SERVER
90
PROXY SERVER
88
JAVA PROGRAM
DEVICE SERVER
92
BANK A
INTERNET (WAN)
HTTP SERVER
BANK B
16
INTRA NET
TOUCH SCREEN
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
104
82
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
40
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 8

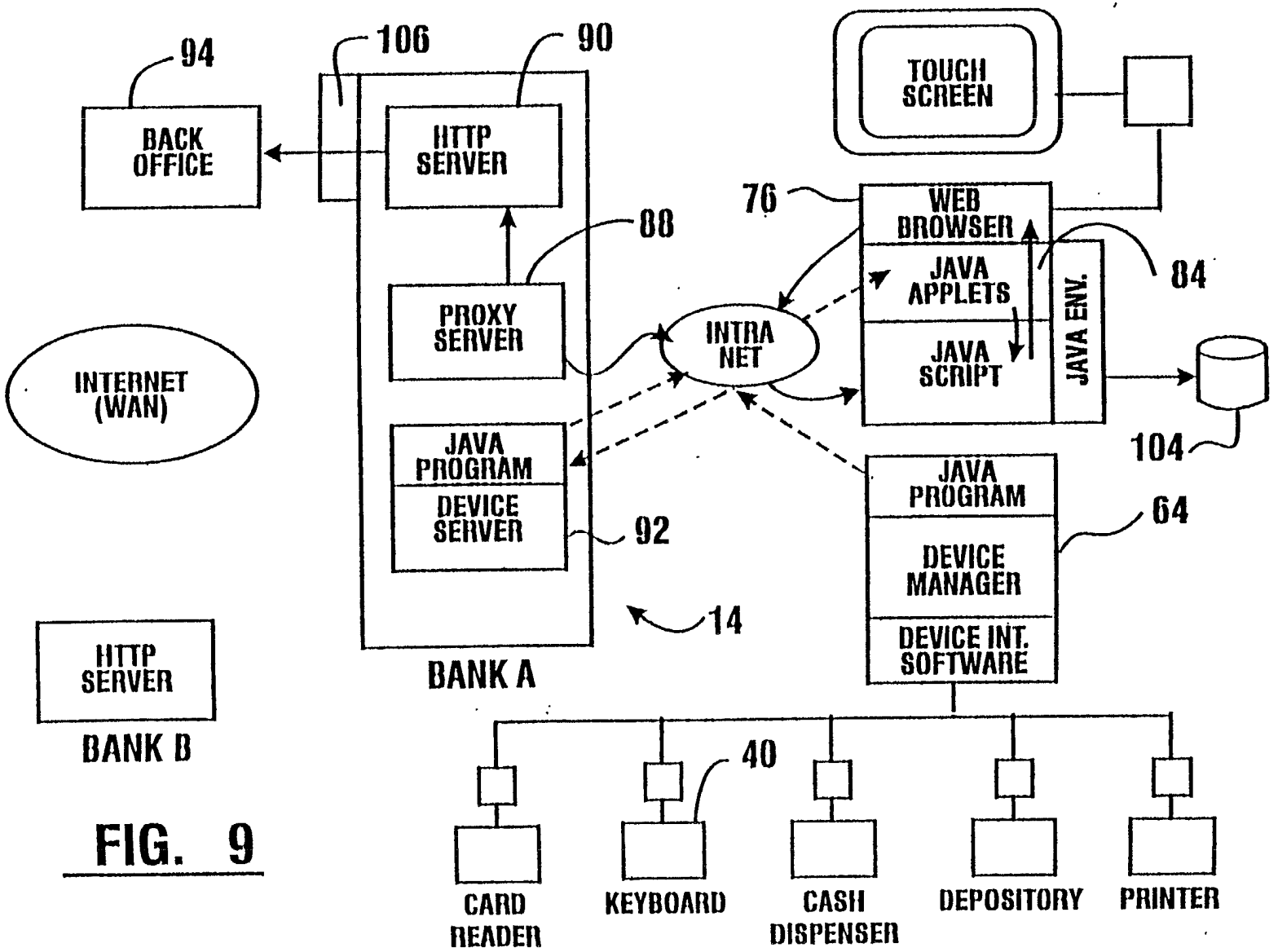

94
106
90
BACK OFFICE
HTTP SERVER
TOUCH SCREEN
76
WEB BROWSER
88
JAVA APPLETS
84
JAVA ENV.
PROXY SERVER
INTRA NET
JAVA SCRIPT
INTERNET (WAN)
104
JAVA PROGRAM
DEVICE SERVER
92
JAVA PROGRAM
DEVICE MANAGER
64
DEVICE INT. SOFTWARE
14
HTTP SERVER
BANK A
BANK B
40
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 9

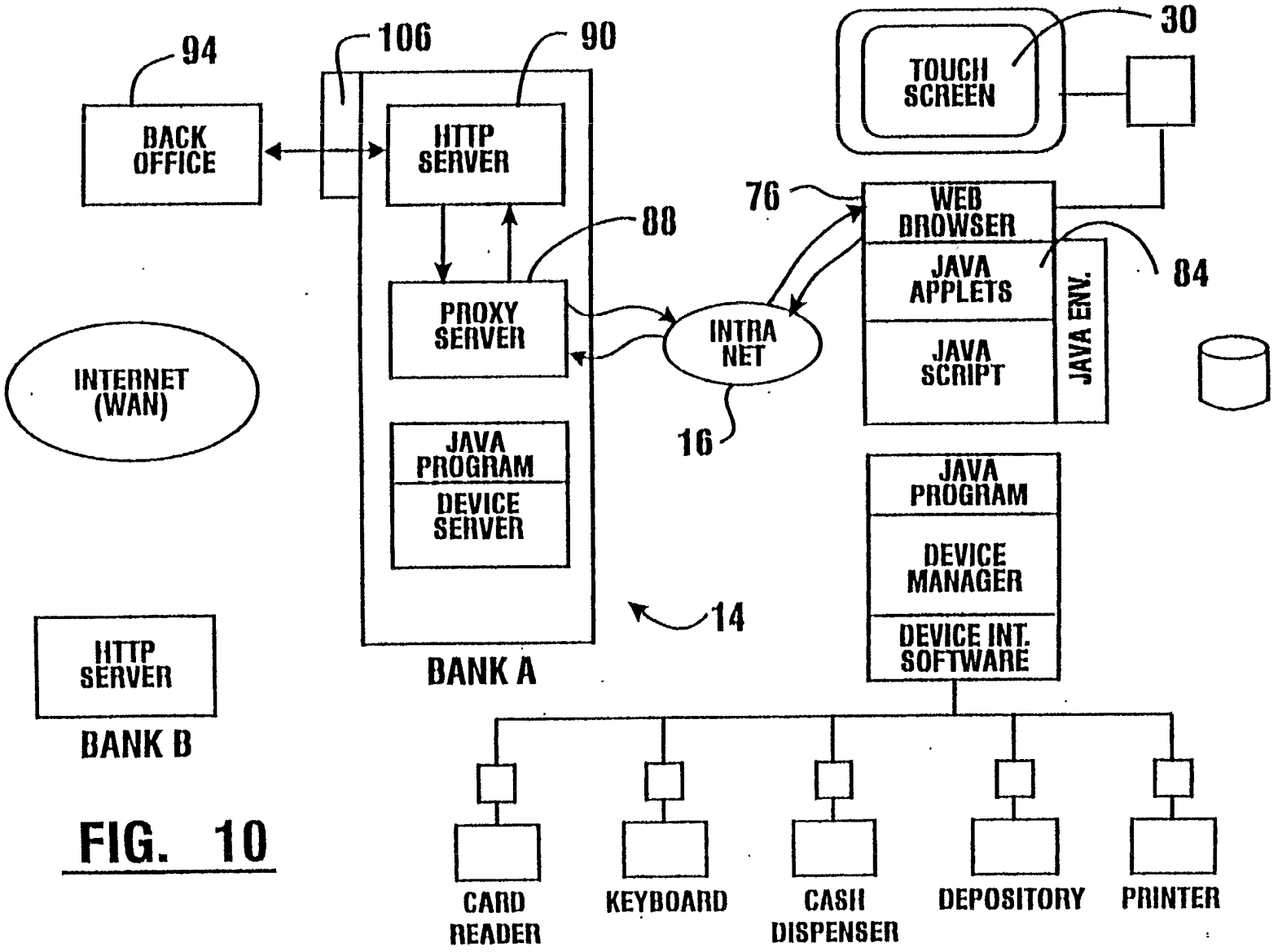

94
106
90
30
BACK OFFICE
HTTP SERVER
TOUCH SCREEN
76
WEB BROWSER
88
JAVA APPLETS
84
JAVA ENV.
PROXY SERVER
INTRA NET
JAVA SCRIPT
INTERNET (WAN)
16
JAVA PROGRAM
DEVICE SERVER
JAVA PROGRAM
DEVICE MANAGER
14
DEVICE INT. SOFTWARE
HTTP SERVER
BANK A
BANK B
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 10

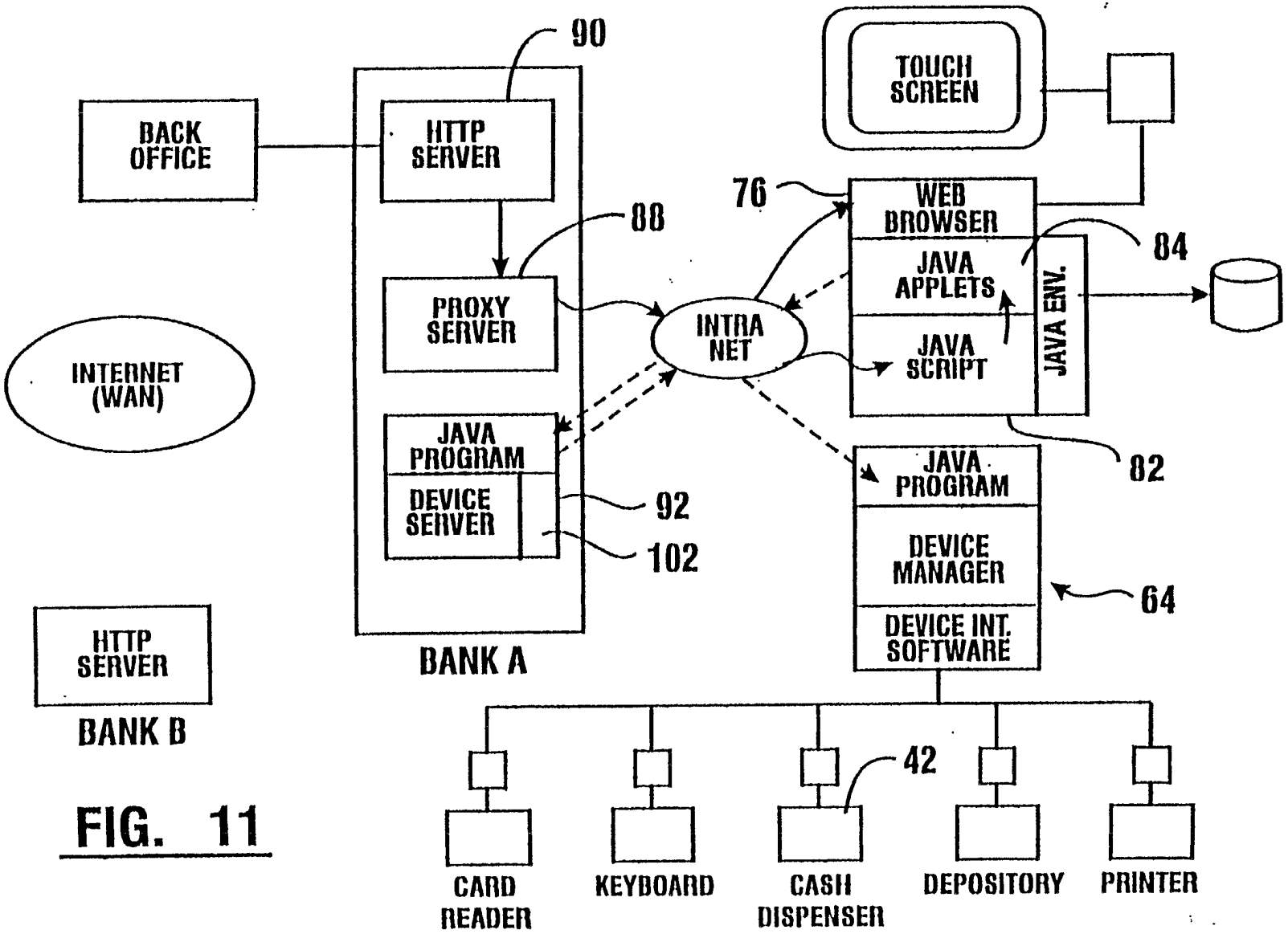

BACK OFFICE
HTTP SERVER
90
88
PROXY SERVER
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
92
102
INTRA NET
BANK A
HTTP SERVER
BANK B
TOUCH SCREEN
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
82
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
42
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 11

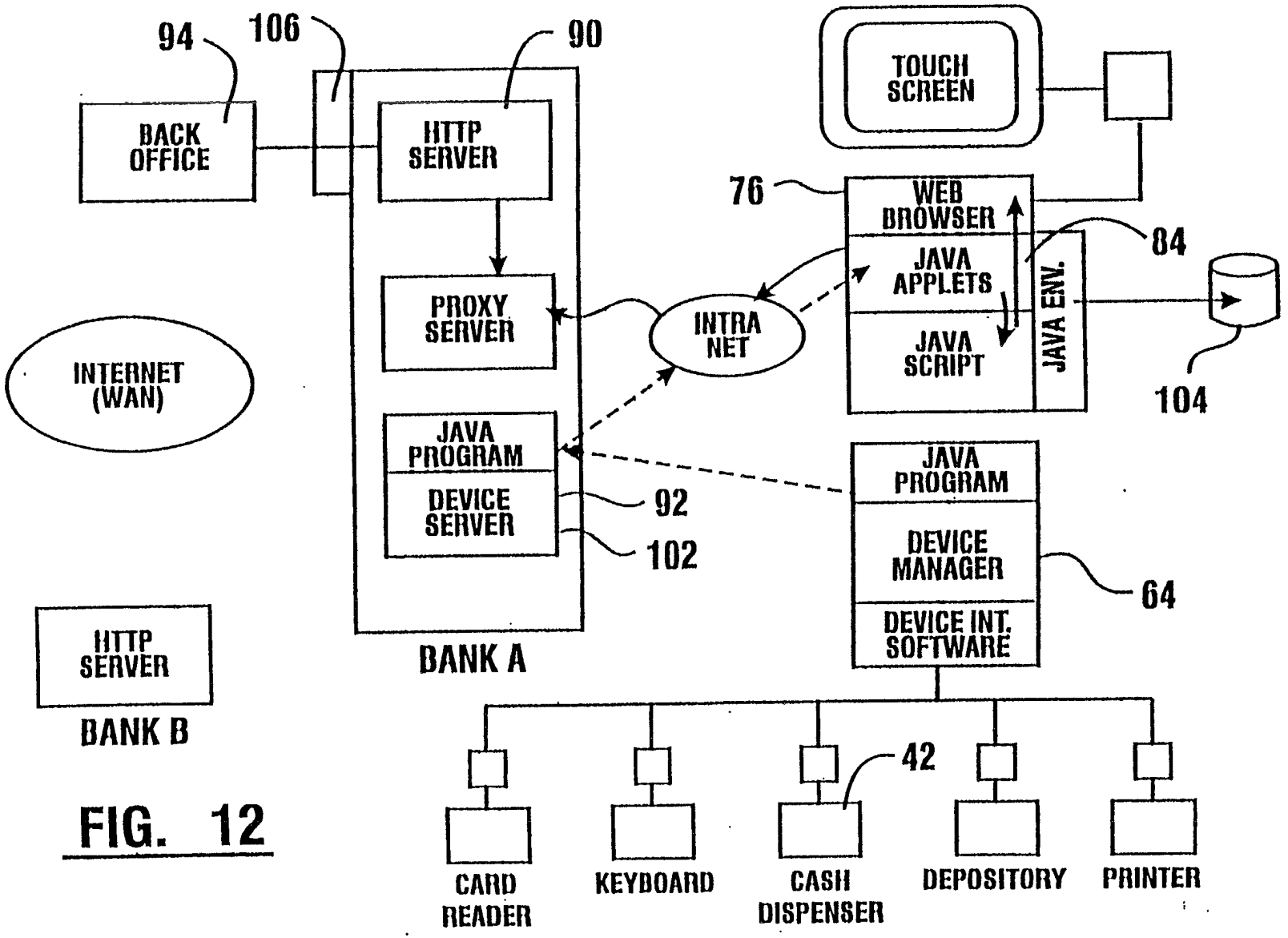

94
106
90
BACK OFFICE
HTTP SERVER
PROXY SERVER
INTRA NET
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
92
102
BANK A
HTTP SERVER
BANK B
TOUCH SCREEN
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
42
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 12

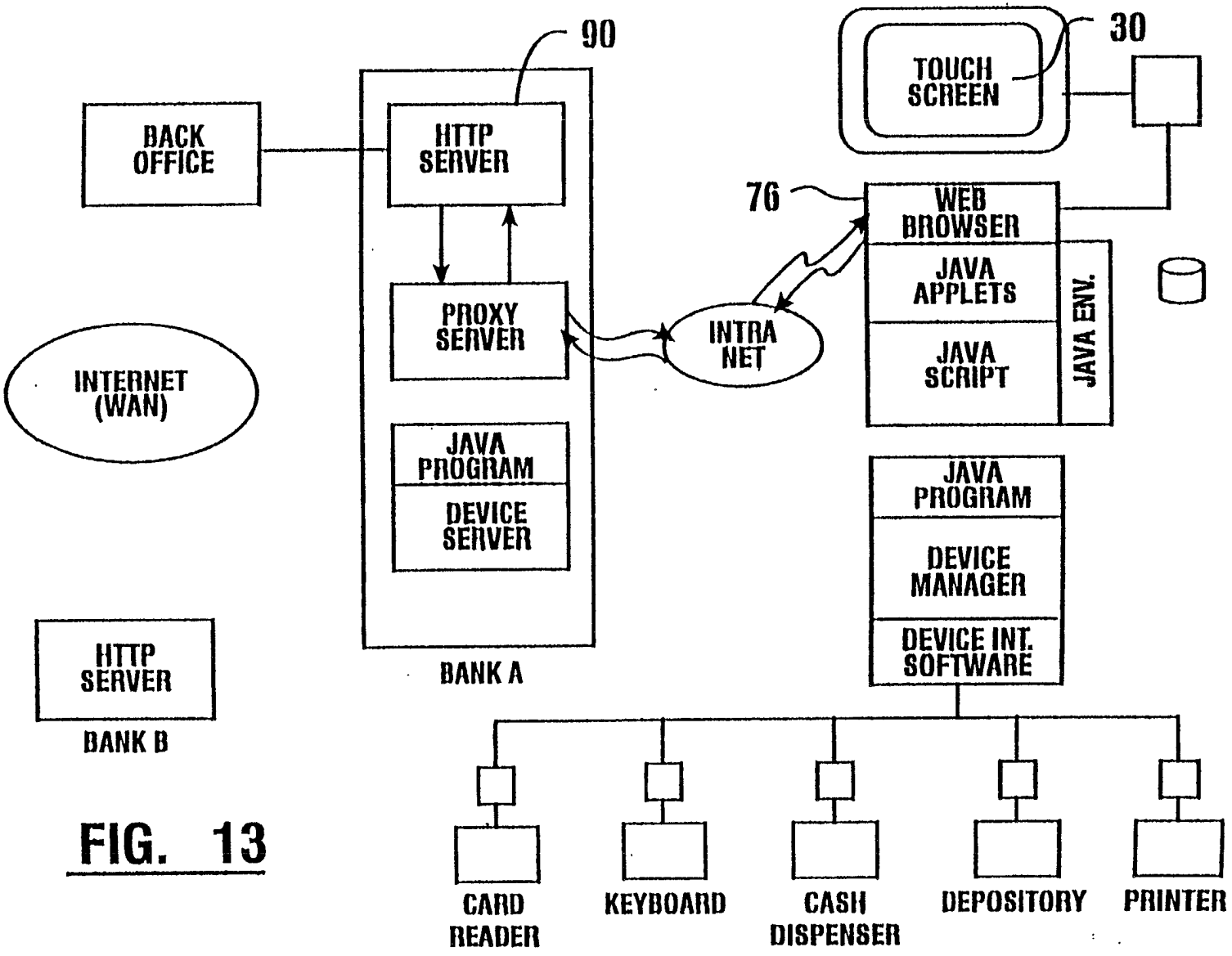

90
30
TOUCH SCREEN
BACK OFFICE
HTTP SERVER
76
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
PROXY SERVER
INTRA NET
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
HTTP SERVER
BANK A
BANK B
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 13

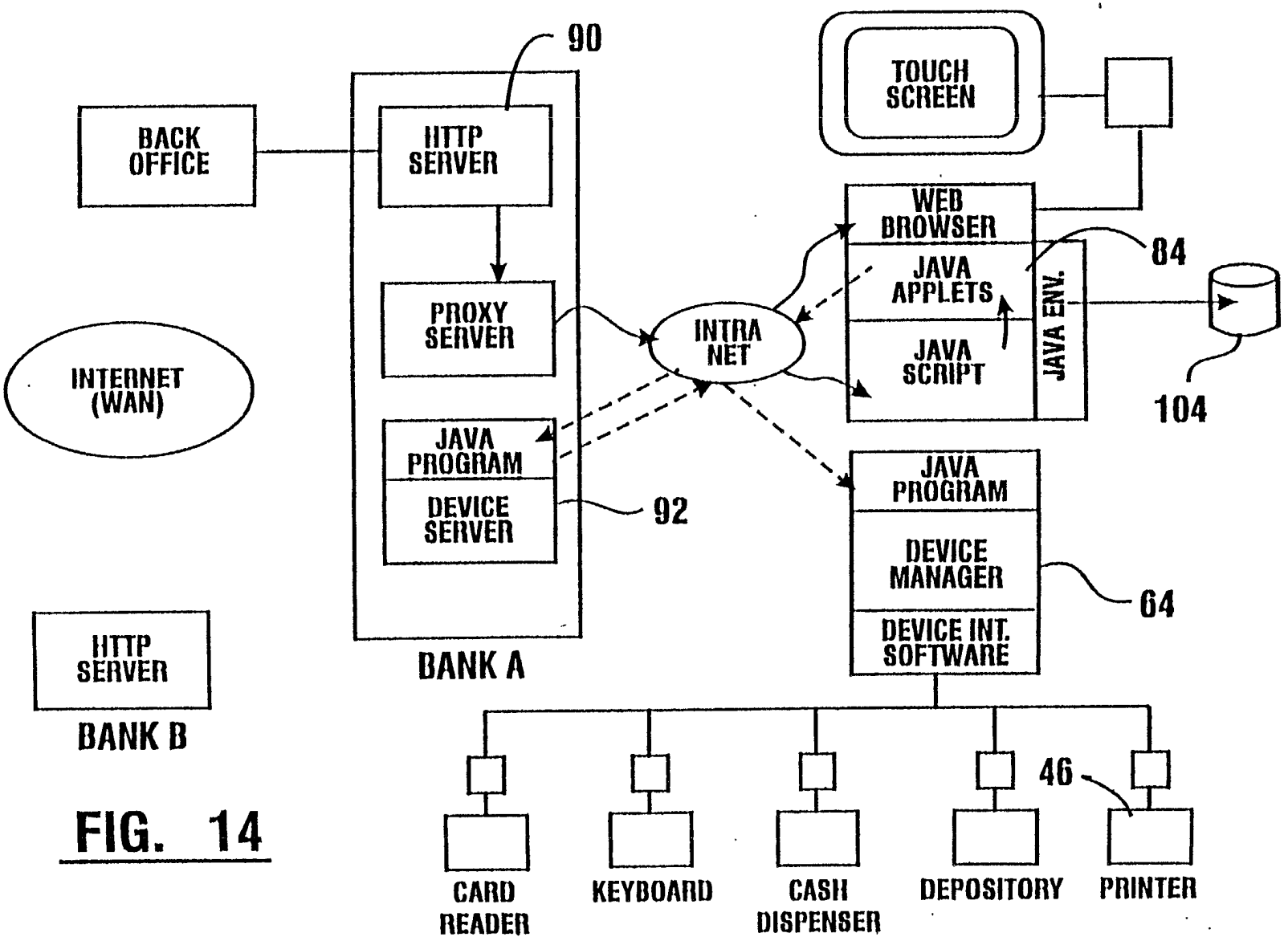

90
BACK OFFICE
HTTP SERVER
PROXY SERVER
JAVA PROGRAM
DEVICE SERVER
92
BANK A
INTERNET (WAN)
HTTP SERVER
BANK B
INTRA NET
TOUCH SCREEN
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
46
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 14

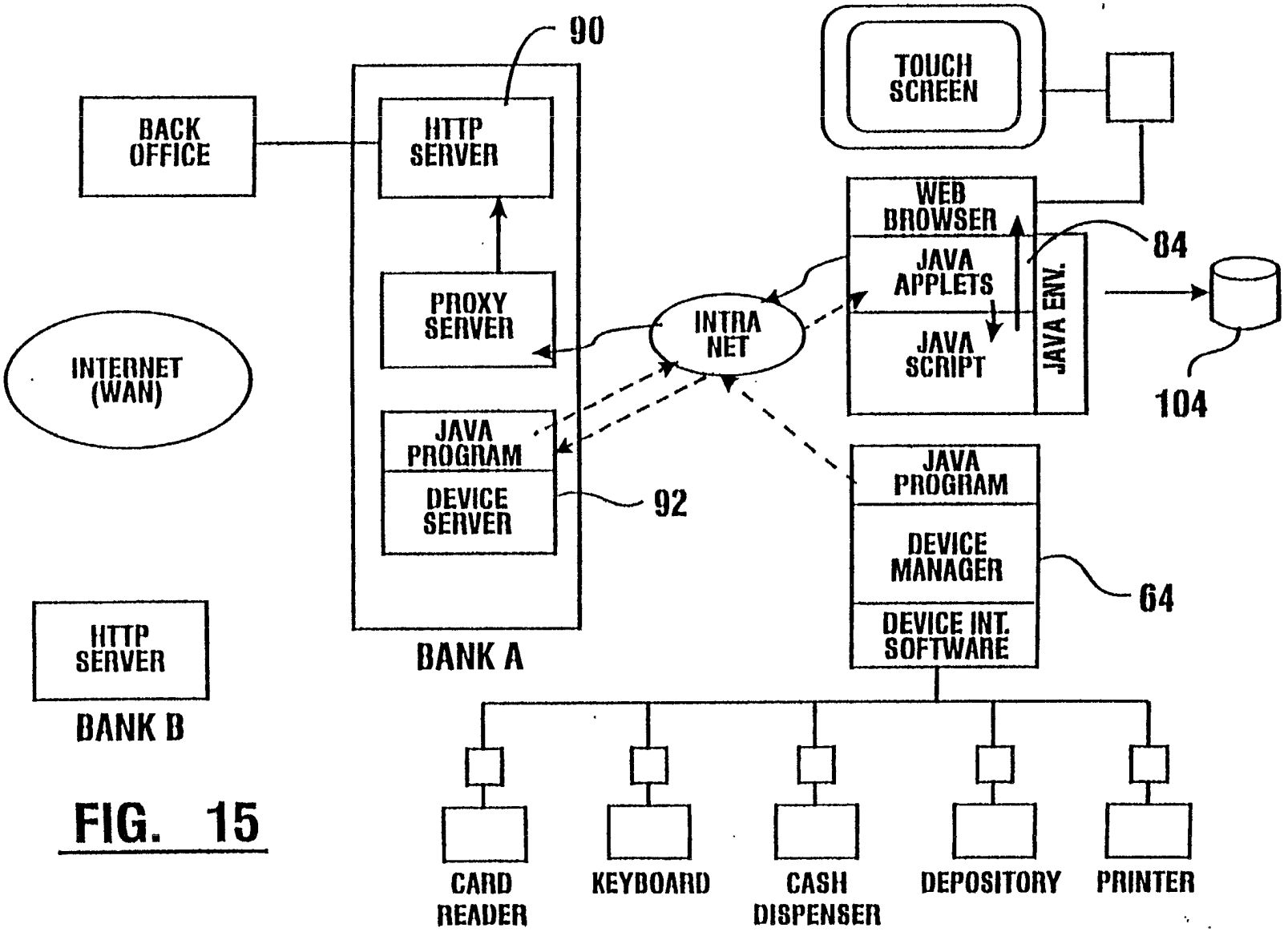

90
BACK OFFICE
HTTP SERVER
PROXY SERVER
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
92
BANK A
HTTP SERVER
BANK B
INTRA NET
TOUCH SCREEN
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 15

TOSOOT "OOh2660

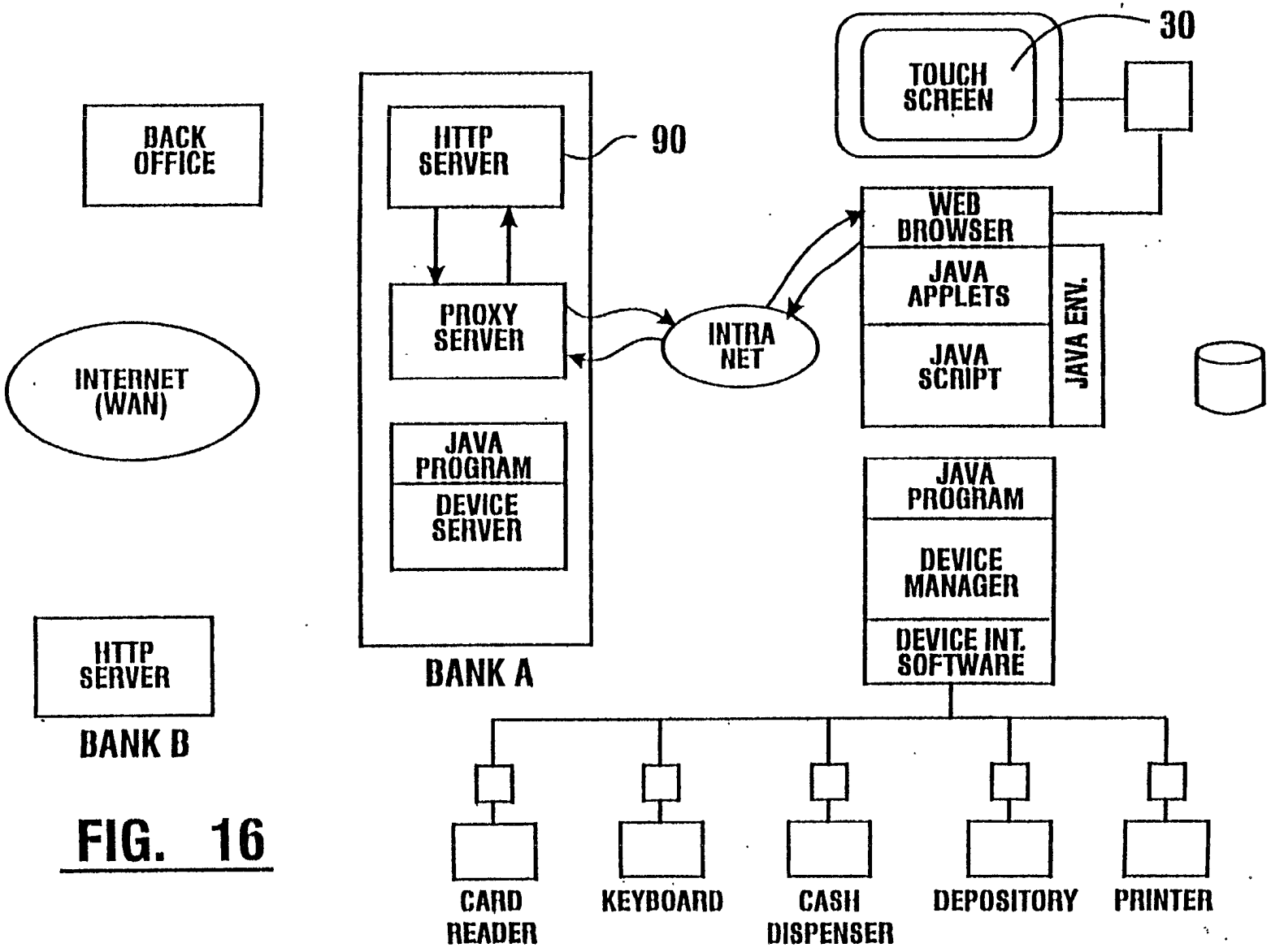


FIG. 16

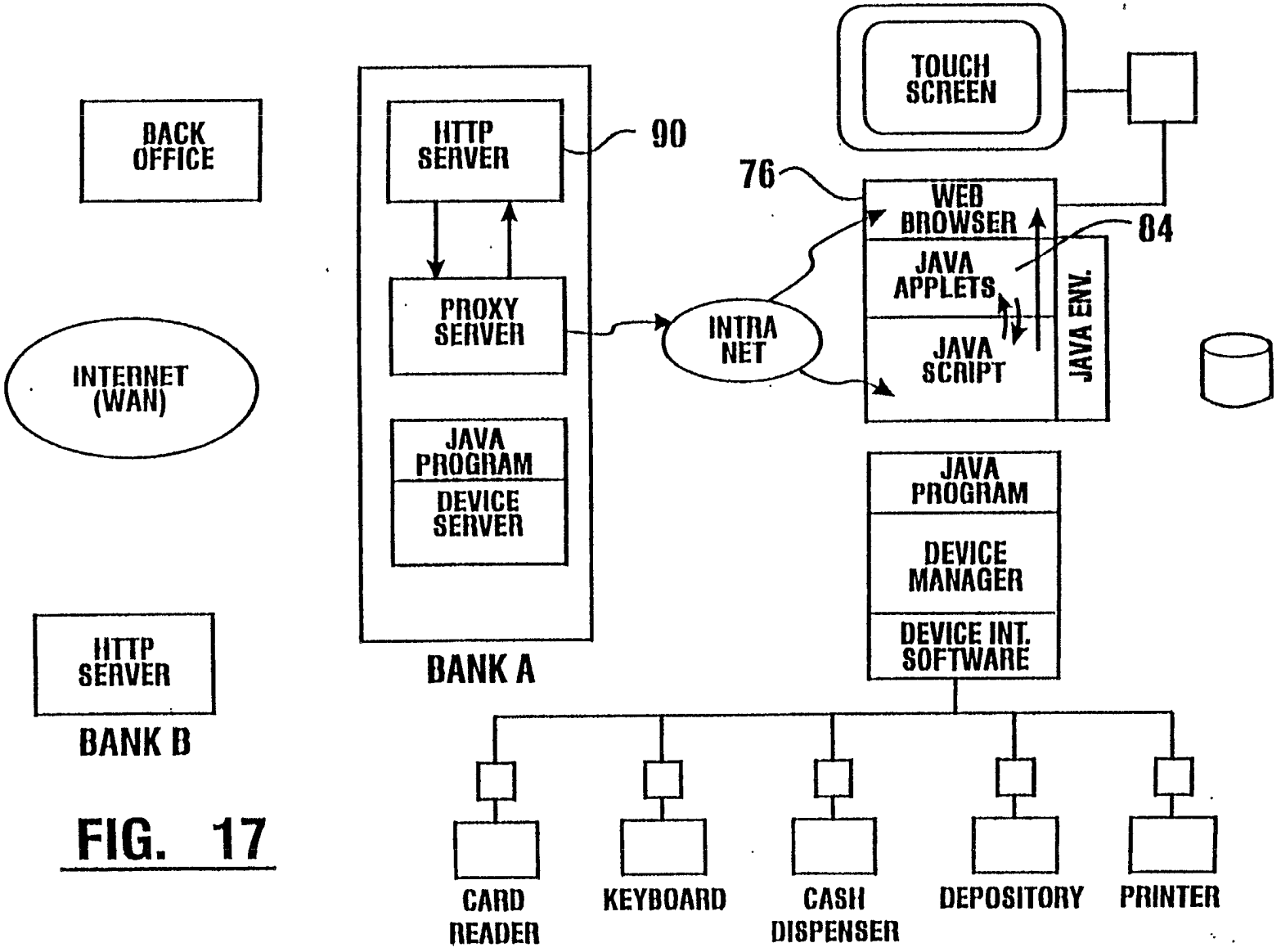

BACK OFFICE
INTERNET (WAN)
HTTP SERVER
BANK B
HTTP SERVER
90
PROXY SERVER
JAVA PROGRAM
DEVICE SERVER
BANK A
INTRA NET
TOUCH SCREEN
76
WEB BROWSER
84
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 17

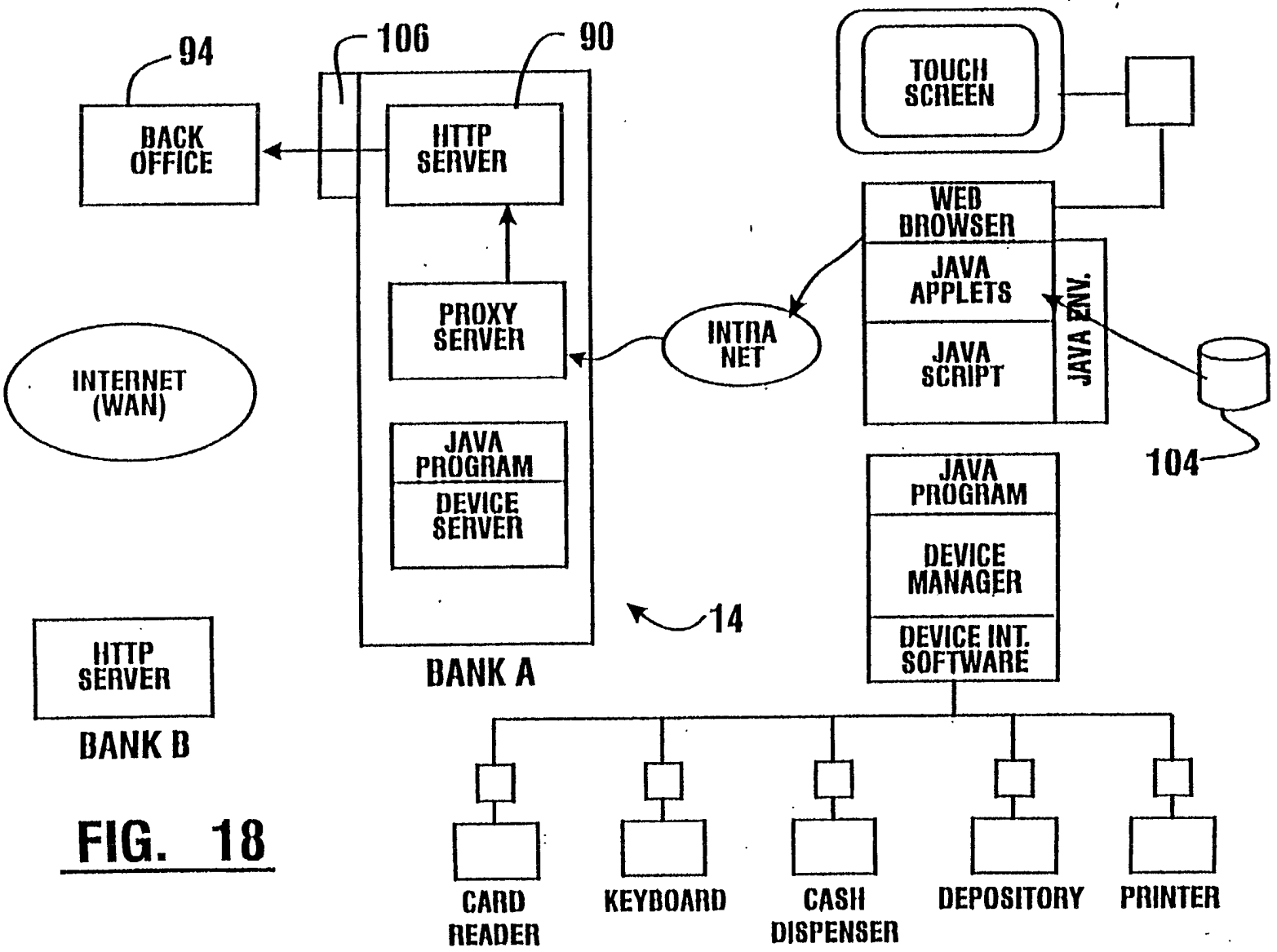

94
106
90
BACK OFFICE
HTTP SERVER
TOUCH SCREEN
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
PROXY SERVER
INTRA NET
INTERNET (WAN)
JAVA PROGRAM
DEVICE SERVER
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
14
HTTP SERVER
BANK A
BANK B
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 18

TOSOOT" OOH2660

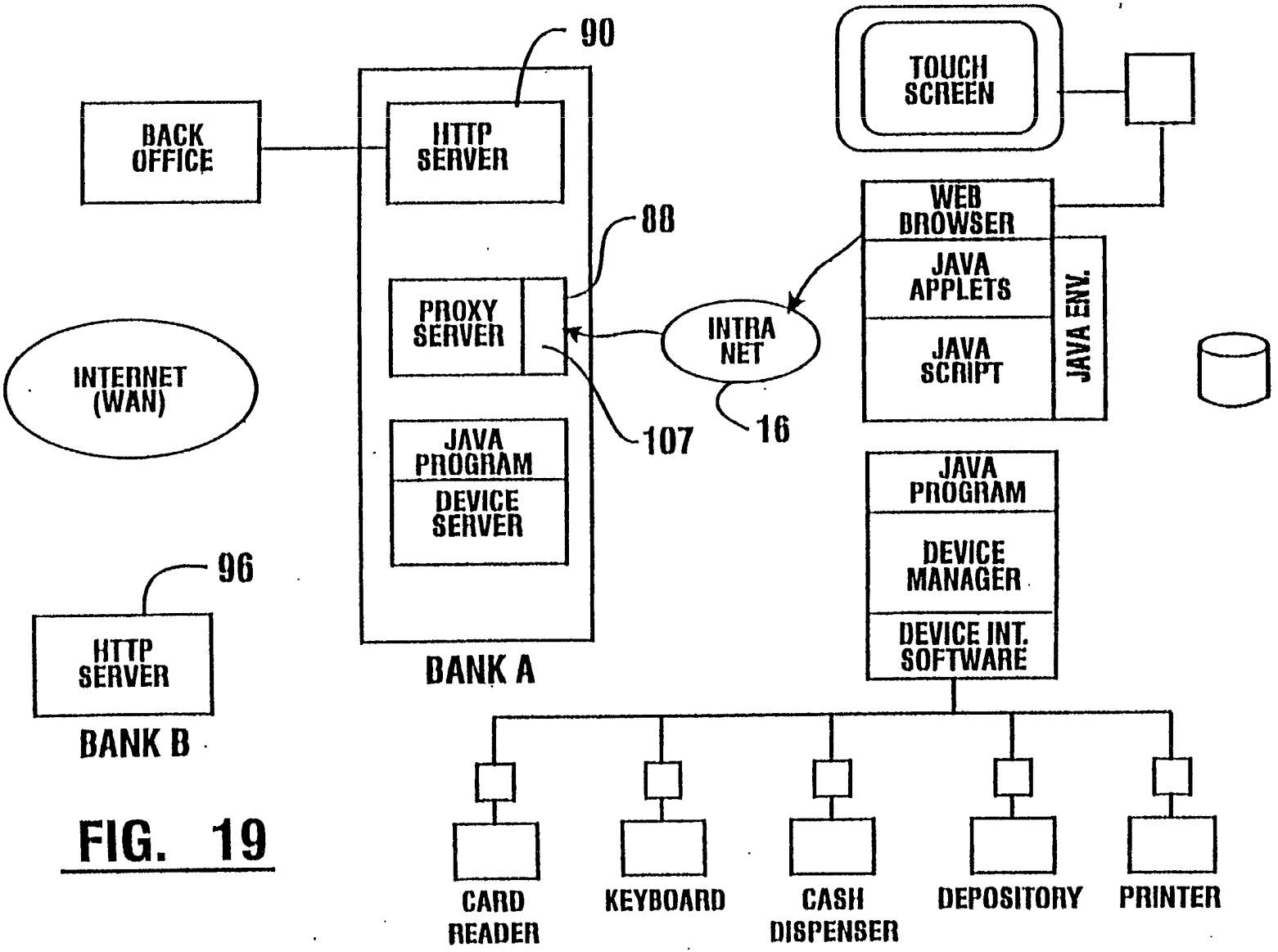


FIG. 19

TO5007 "00t2660

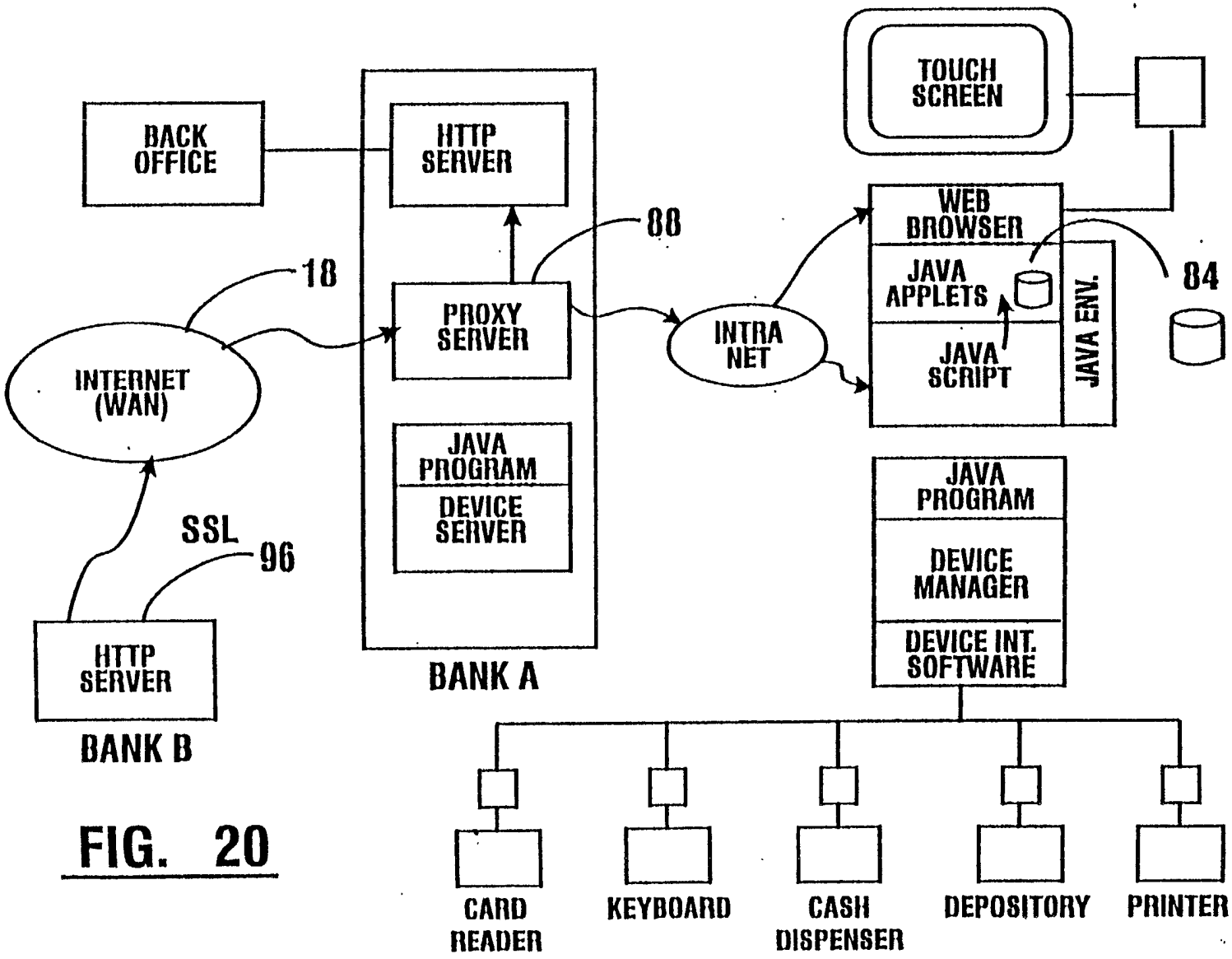


FIG. 20

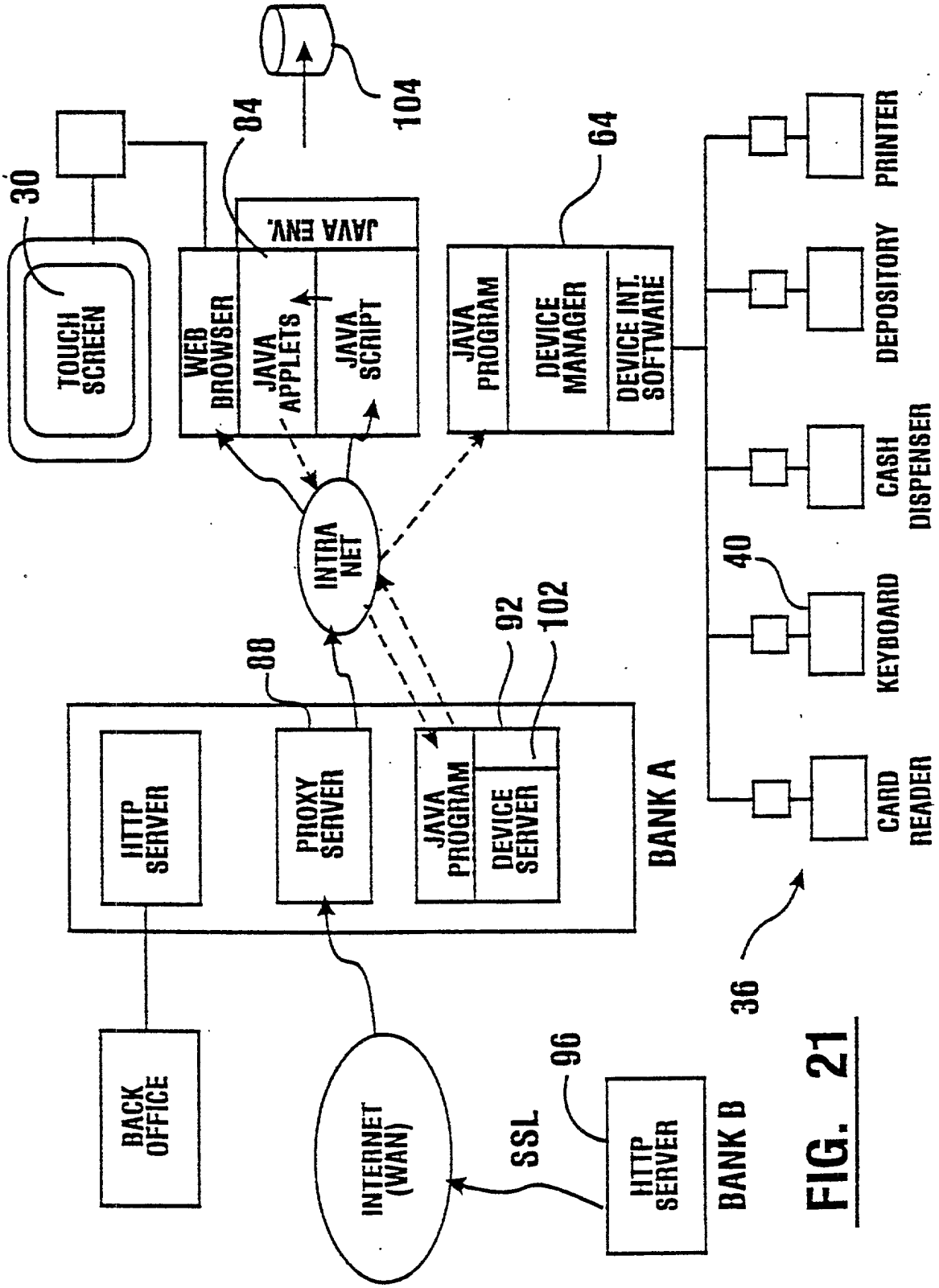

30
TOUCH SCREEN
84
JAVA ENV.
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
104
64
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
PRINTER
DEPOSITORY
CASH DISPENSER
KEYBOARD
CARD READER
40
36
INTRA NET
88
92
102
HTTP SERVER
PROXY SERVER
JAVA PROGRAM
DEVICE SERVER
BANK A
BACK OFFICE
INTERNET (WAN)
SSL
96
HTTP SERVER
BANK B

FIG. 21

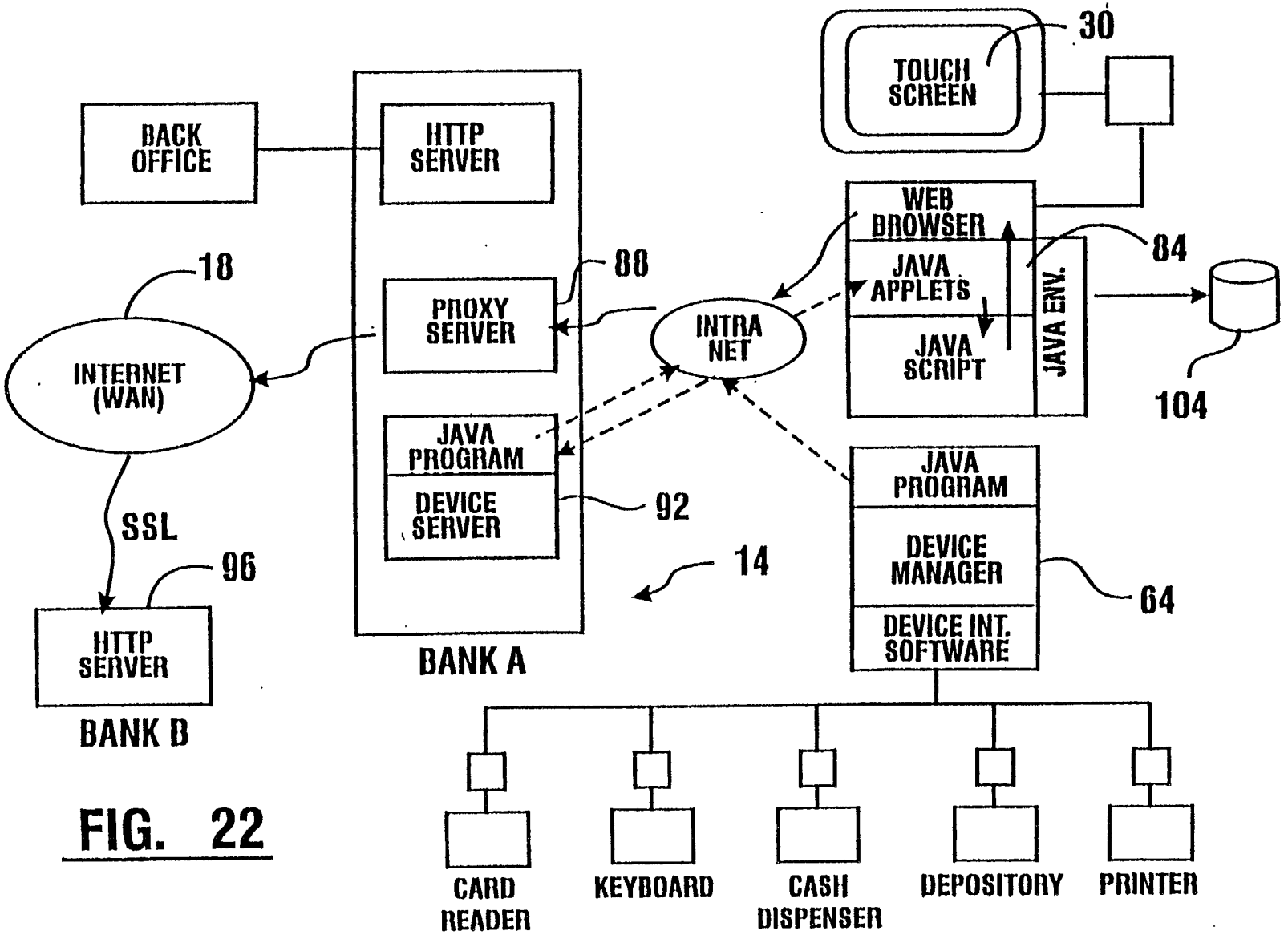

BACK OFFICE
HTTP SERVER
TOUCH SCREEN
30
WEB BROWSER
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
84
104
18
INTERNET (WAN)
88
PROXY SERVER
INTRA NET
JAVA PROGRAM
DEVICE SERVER
92
SSL
96
HTTP SERVER
BANK B
14
BANK A
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
64
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 22

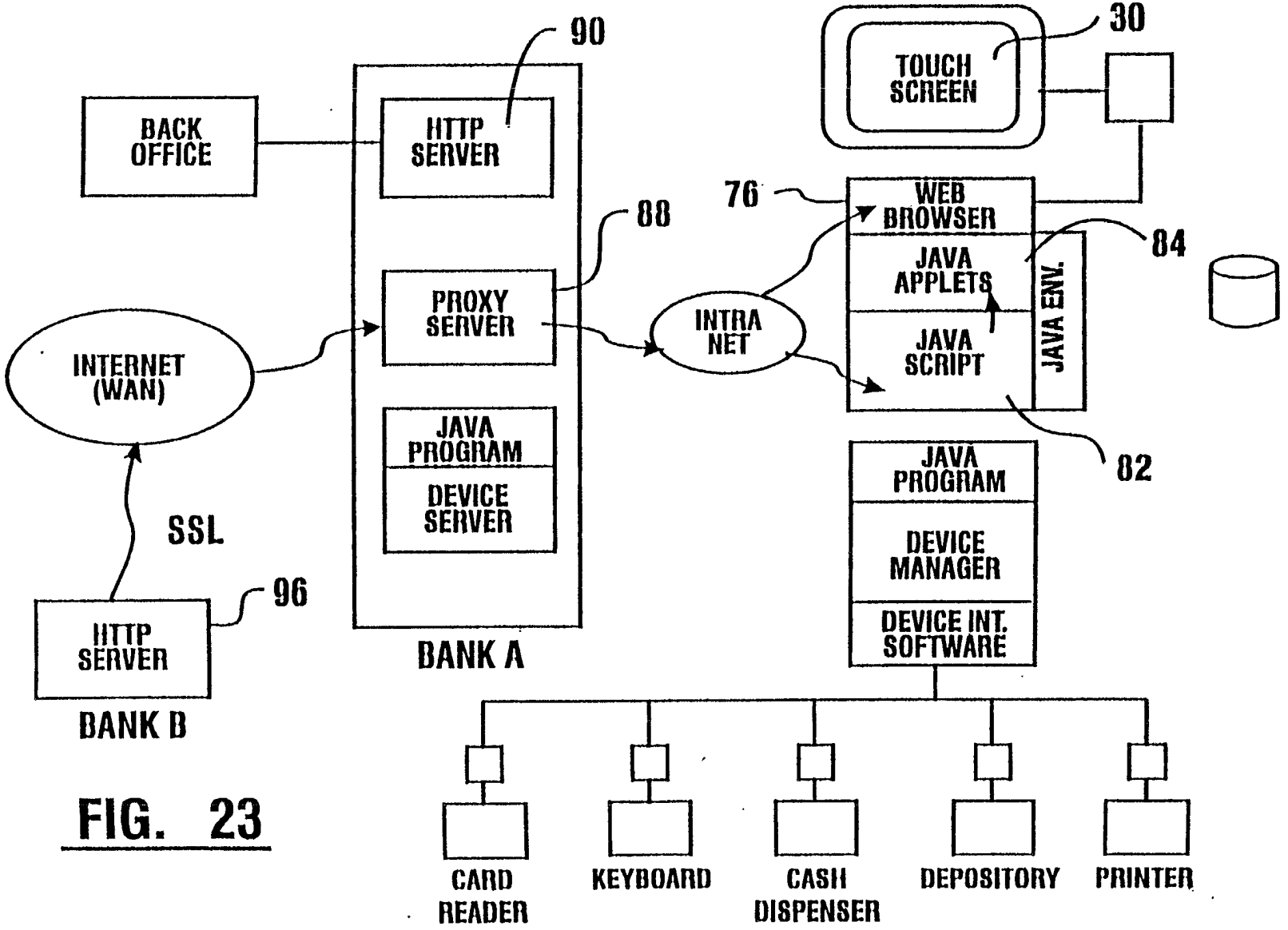

BACK OFFICE
HTTP SERVER
90
TOUCH SCREEN
30
76
WEB BROWSER
88
84
PROXY SERVER
JAVA APPLETS
JAVA ENV.
INTRA NET
INTERNET (WAN)
JAVA SCRIPT
JAVA PROGRAM
DEVICE SERVER
82
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
SSL
96
HTTP SERVER
BANK A
BANK B
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 23

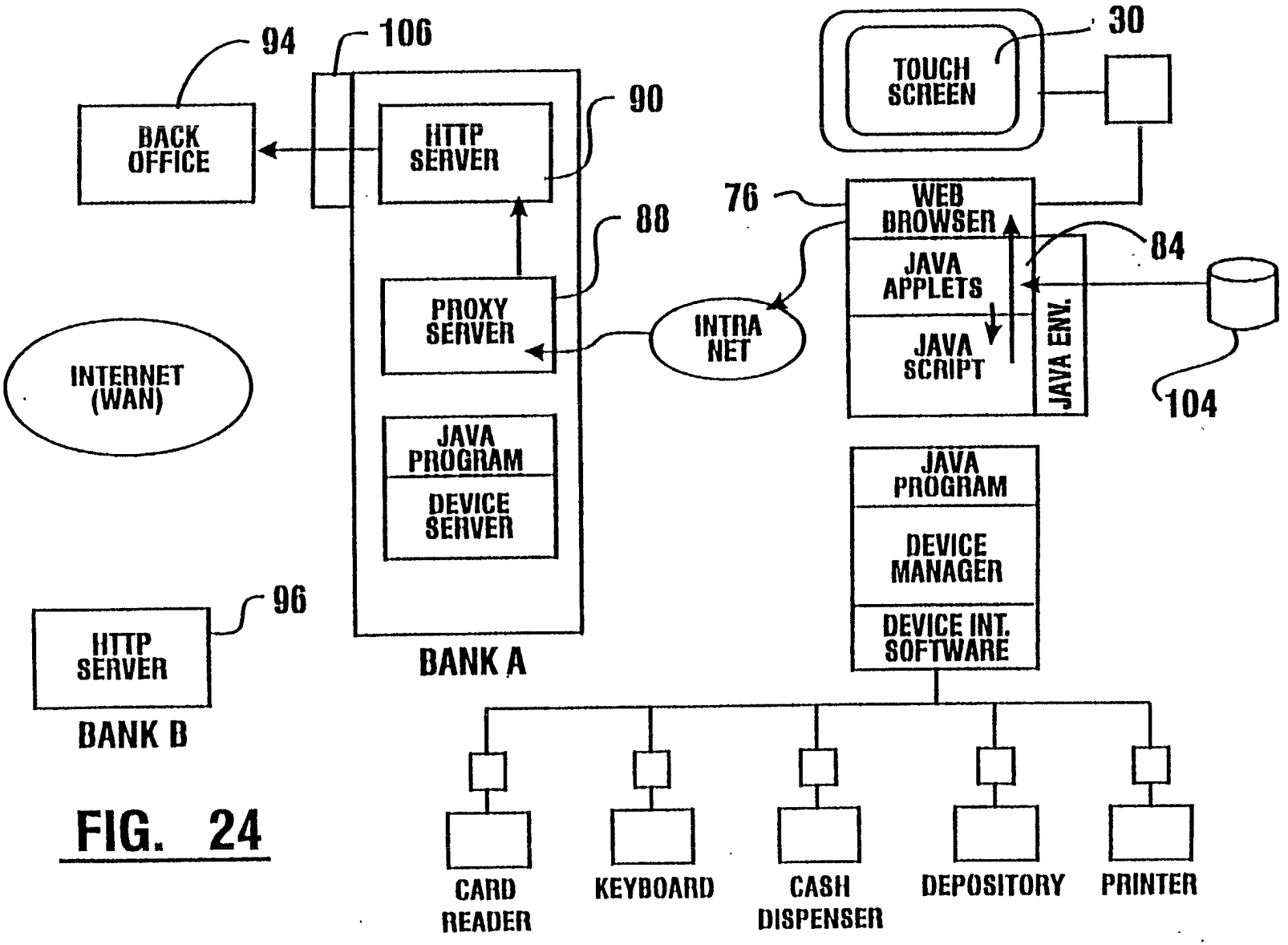

94
106
90
BACK OFFICE
HTTP SERVER
88
PROXY SERVER
INTERNET (WAN)
INTRA NET
JAVA PROGRAM
DEVICE SERVER
96
HTTP SERVER
BANK A
BANK B
30
TOUCH SCREEN
76
WEB BROWSER
84
JAVA APPLETS
JAVA SCRIPT
JAVA ENV.
104
JAVA PROGRAM
DEVICE MANAGER
DEVICE INT. SOFTWARE
CARD READER
KEYBOARD
CASH DISPENSER
DEPOSITORY
PRINTER

FIG. 24

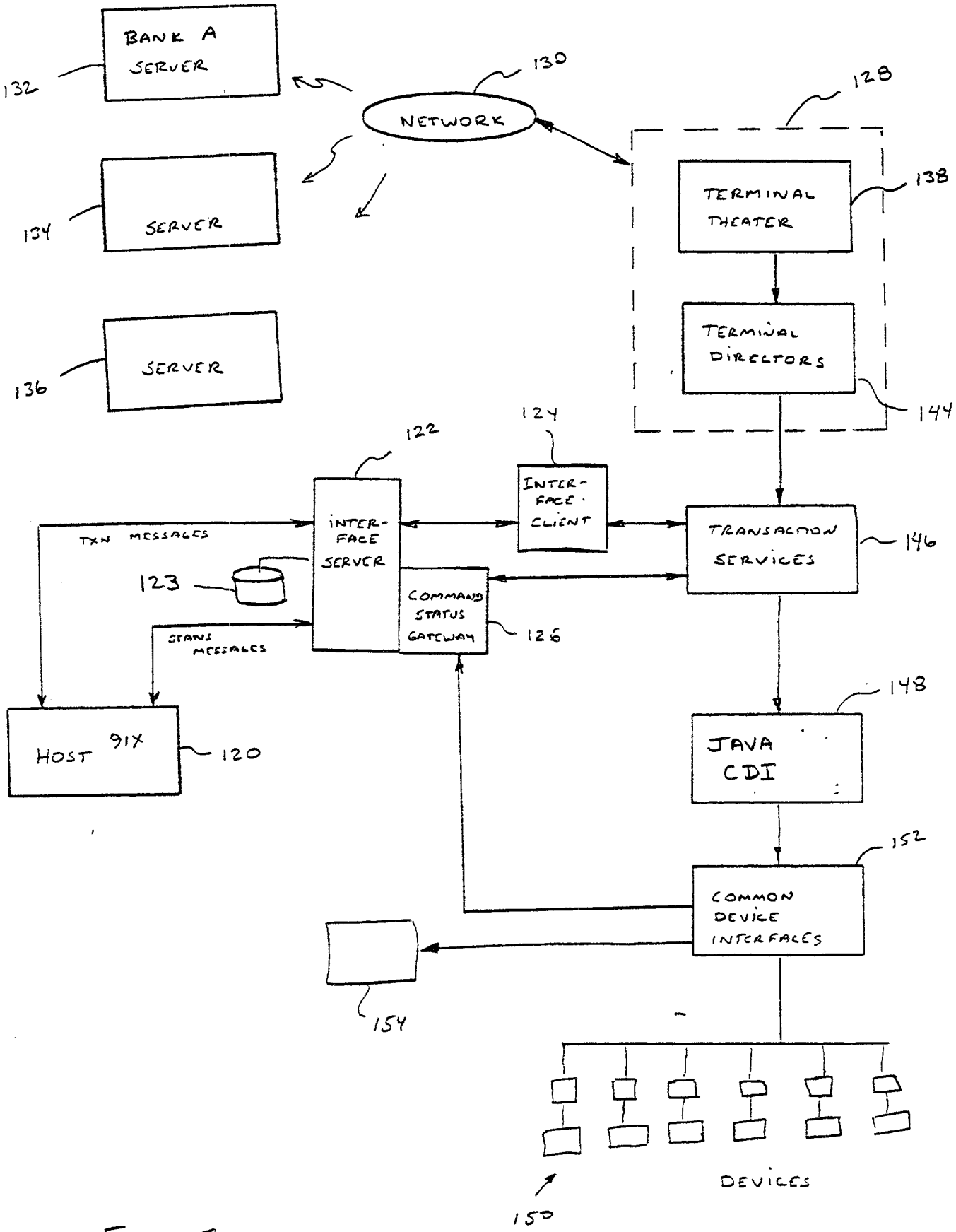

BANK A SERVER
132
NETWORK
130
128
SERVER
134
TERMINAL THEATER
138
SERVER
136
TERMINAL DIRECTORS
144
124
122
INTER-FACE CLIENT
INTER-FACE SERVER
TXN MESSAGES
123
TRANSACTION SERVICES
146
COMMAND STATUS GATEWAY
126
SEANS MESSAGES
148
HOST 91X
120
JAVA CDI
152
COMMON DEVICE INTERFACES
154
DEVICES
150

FIG 25

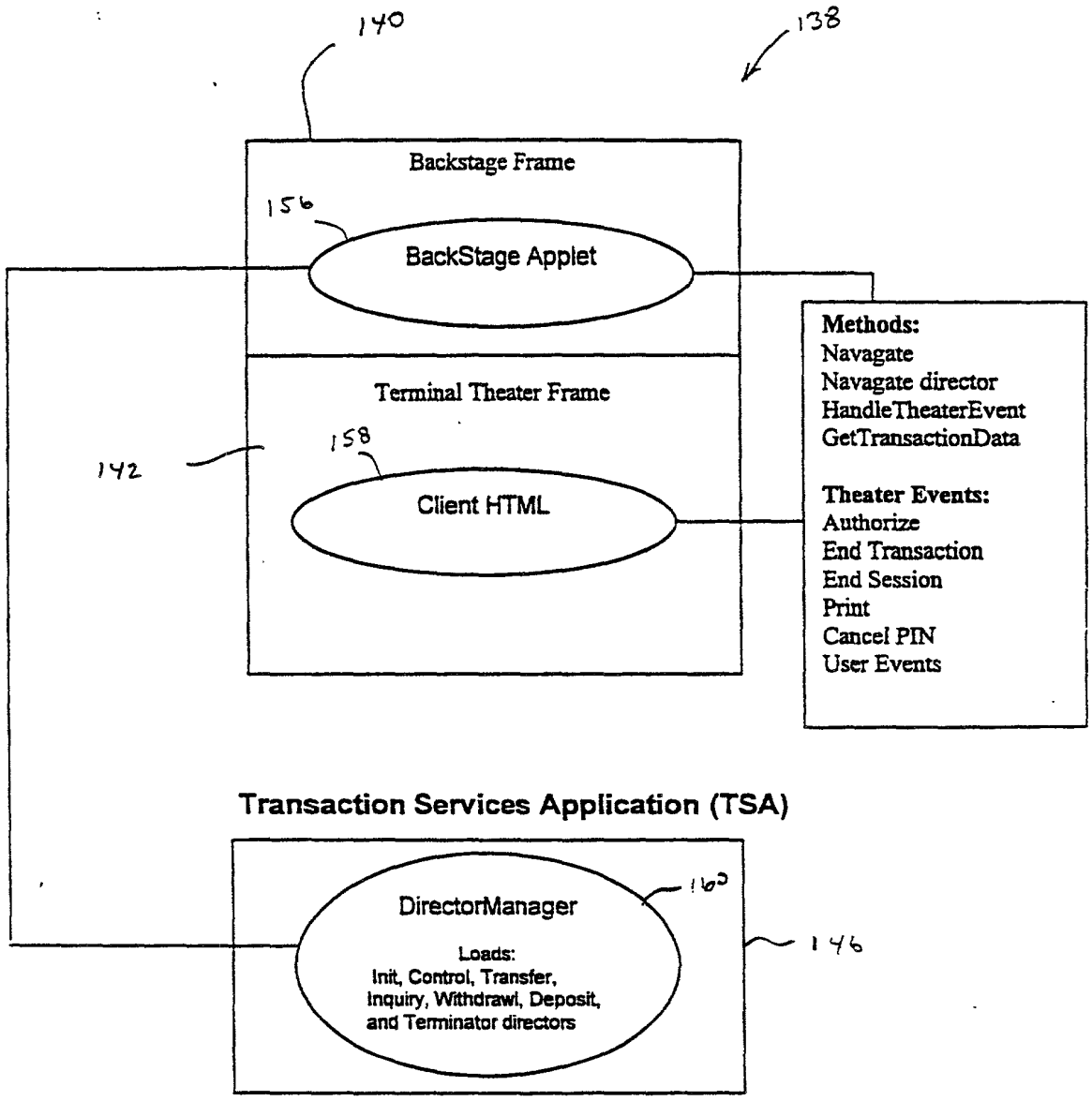
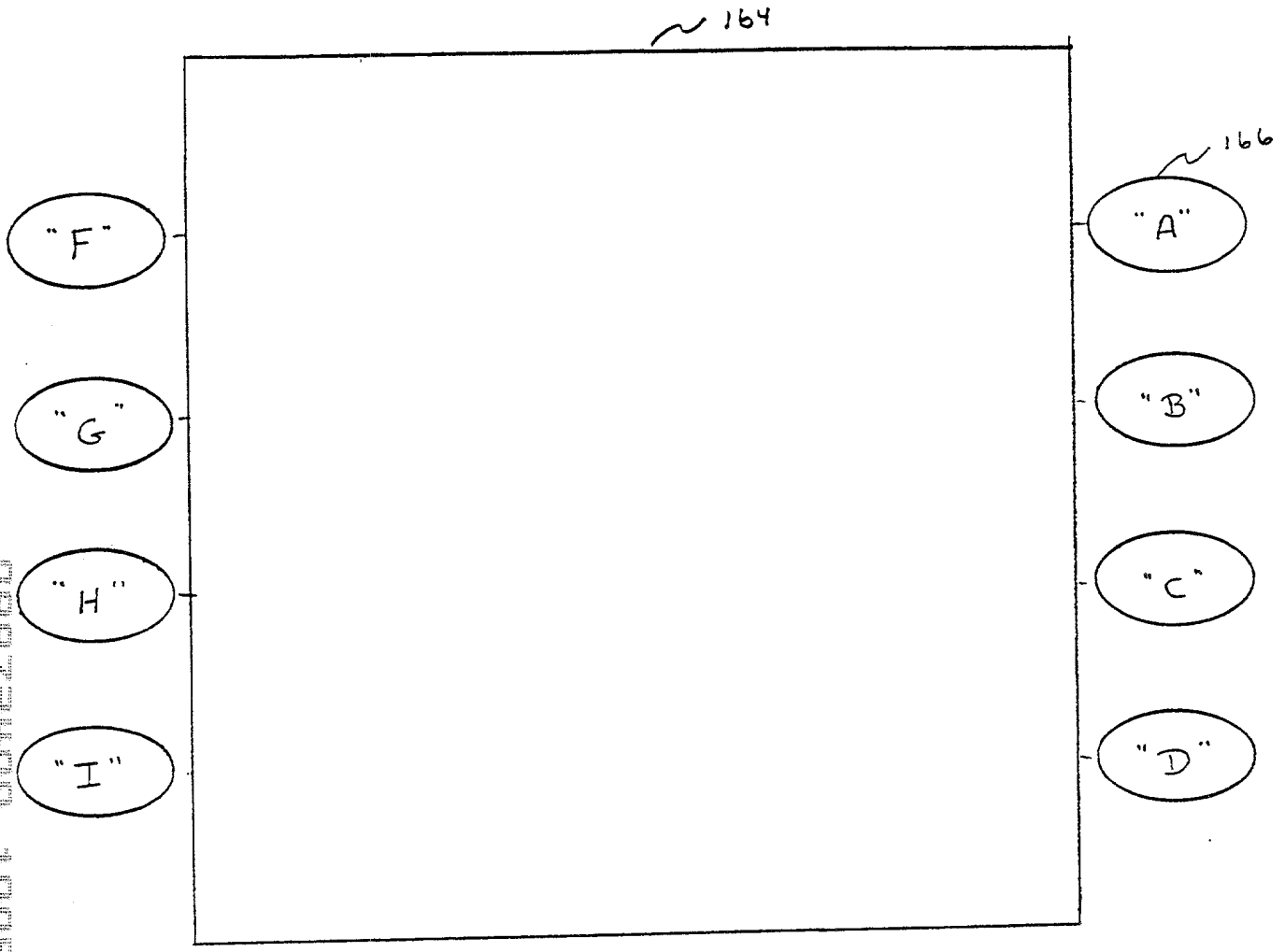


Fig 26

EPSON-0042768



SUBSTITUTE SHEET (RULE 26)

162

168

1	2 ABC	3 DEF	CANCEL "E"
4 GHI	5 JKL	6 MNO	CORR "K"
7 PQRS	8 TUV	9 WXYZ	Blank "L"
Blank "M"	0	.	OK "J"

FIG 27

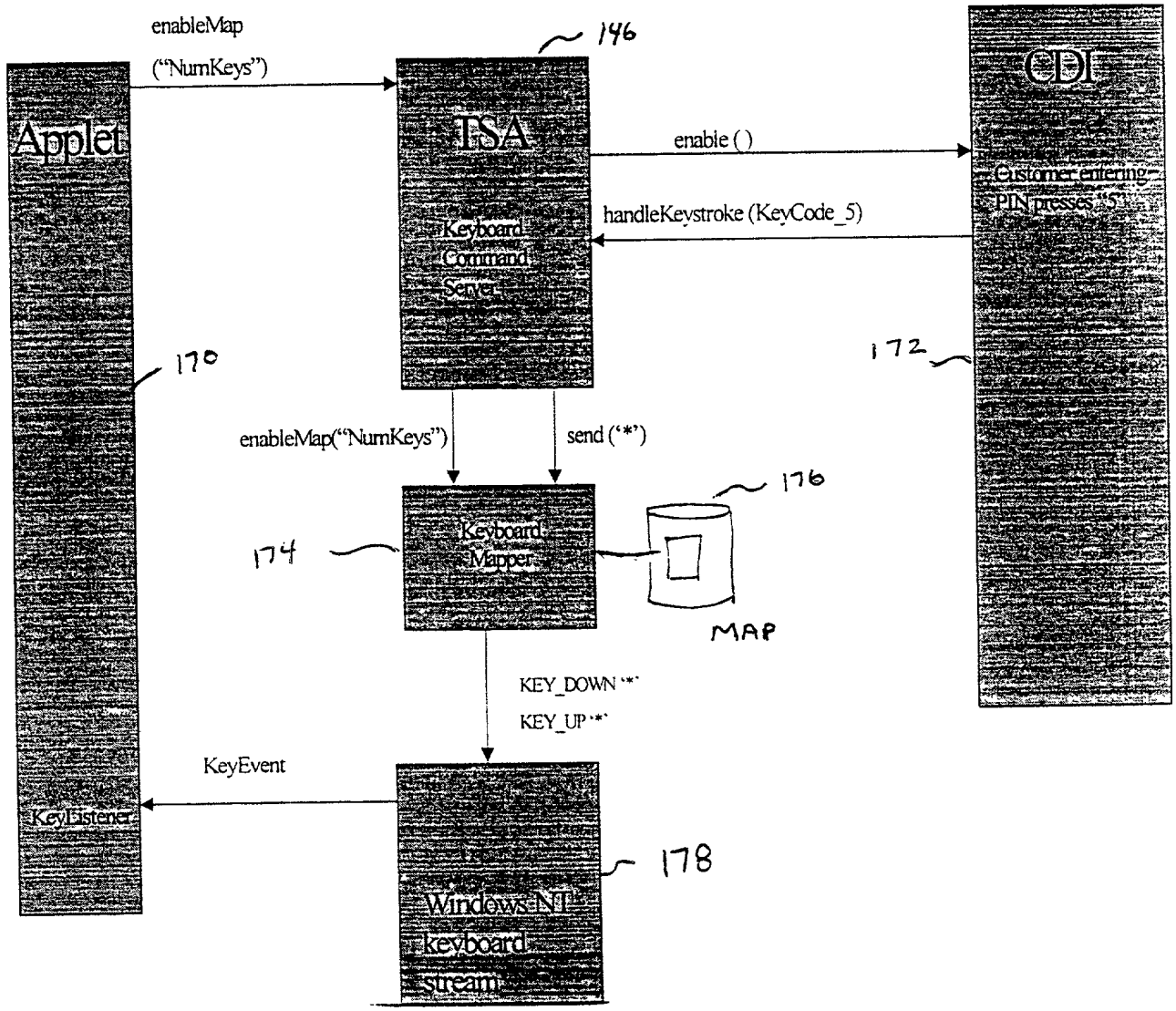

enableMap
("NumKeys")
146
Applet
TSA
CDI
enable ( )
Customer entering
PIN presses "5"
handleKeystroke (KeyCode_5)
Keyboard
Command
Server
170
172
enableMap("NumKeys")
send ('*')
176
174
Keyboard
Mapper
MAP
KEY_DOWN '*'
KEY_UP '*'
KeyEvent
KeyListener
178
Windows NT
keyboard
stream

Fig 28

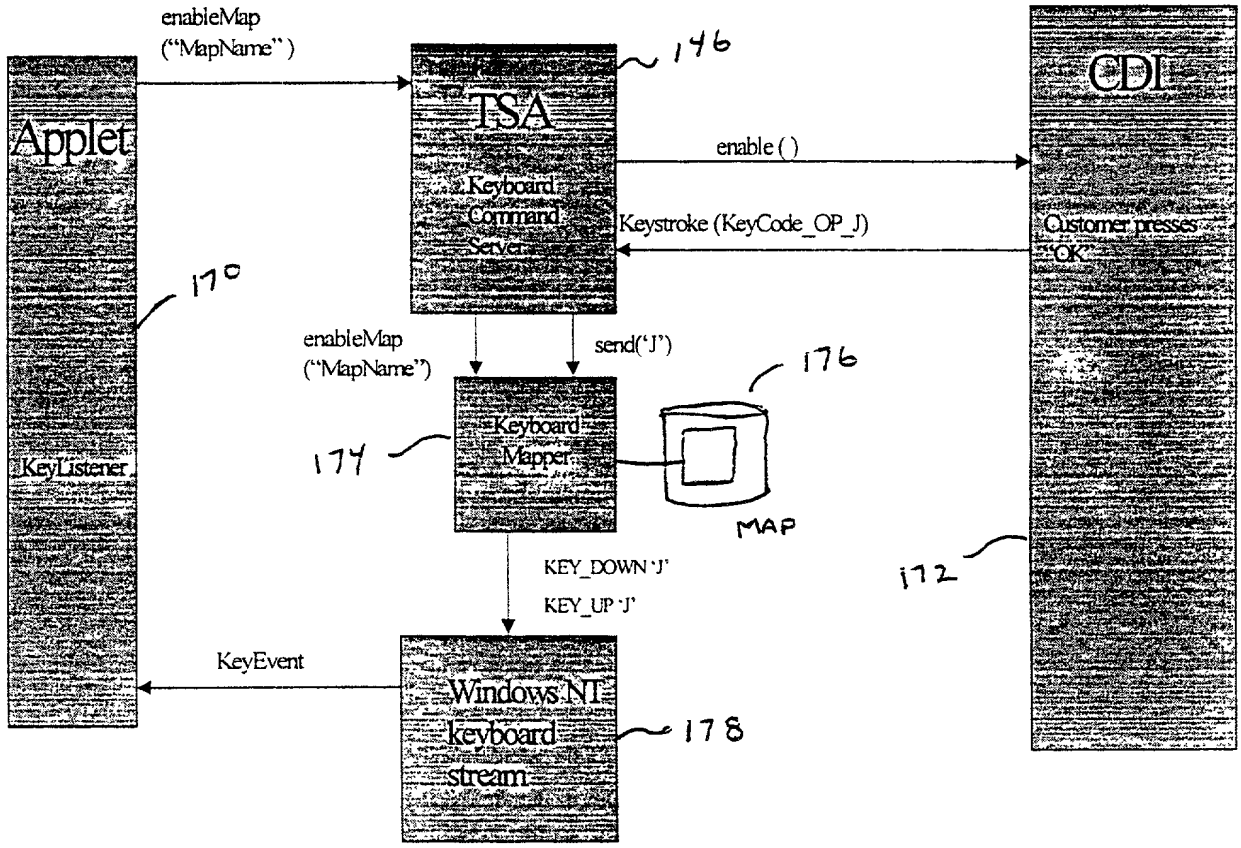
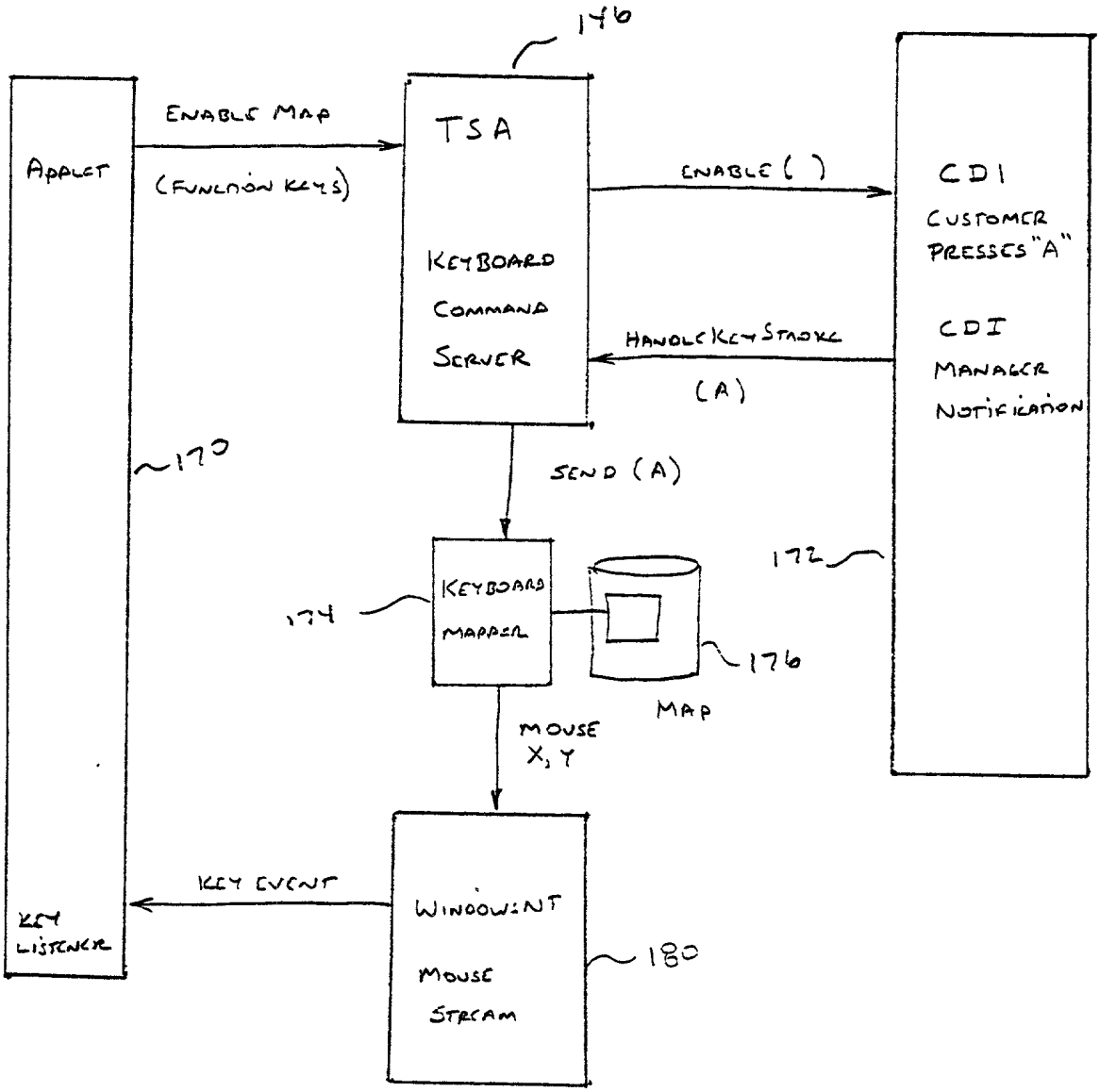

enableMap
("MapName")
Applet
KeyListener
170
TSA
Keyboard
Command
Server
146
enable ( )
Keystroke (KeyCode_OP_J)
CDI
Customer presses
'J'
172
enableMap
("MapName")
send('J')
Keyboard
Mapper
174
176
MAP
KEY_DOWN 'J'
KEY_UP 'J'
KeyEvent
Windows NT
keyboard
stream
178

FIG 29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MOUSE
X, Y
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KEY
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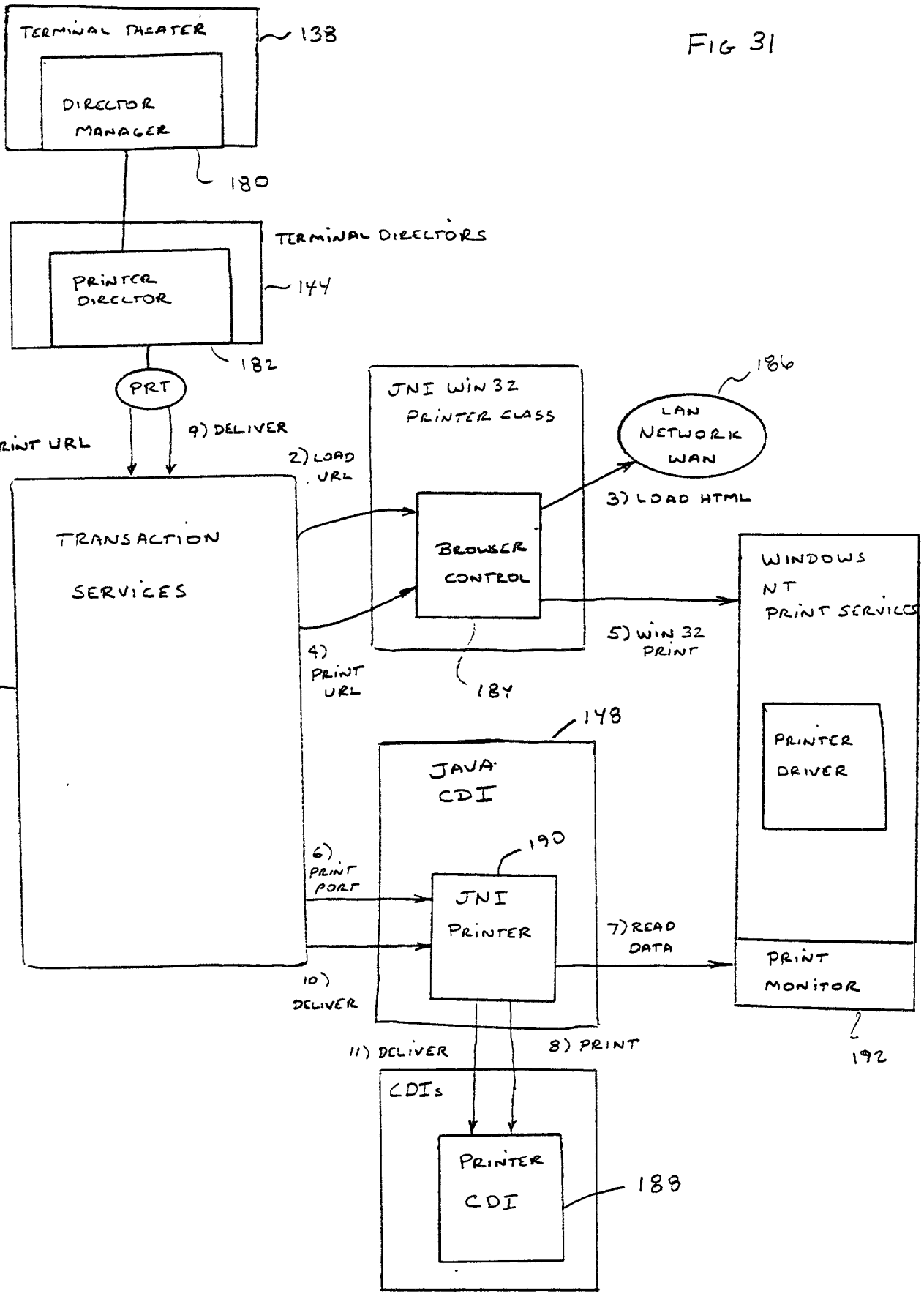
FIG 30

FIG 31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JNI WIN 32 PRINTER CLASS
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